

Company: Noble Energy Inc

Well: Reliance E23-65-1HN  
Field: Wattenberg  
County: Weld State: Colorado

|                                     |                |                     |                |
|-------------------------------------|----------------|---------------------|----------------|
| County: Weld                        |                | USI-LITE            |                |
| Field: Wattenberg                   |                |                     |                |
| Location: NESE Sec. 23 T6N R65W     |                |                     |                |
| Well: Reliance E23-65-1HN           |                |                     |                |
| Company: Noble Energy Inc           |                |                     |                |
| LOCATION                            |                |                     |                |
| Permanent Datum:                    |                | Elev: K.B. 4725.0 F |                |
| Log Measured From:                  |                | G.L. 4695.0 F       |                |
| Drilling Measured From:             |                | D.F. 4724.0 F       |                |
| GL<br>KB<br>KB                      |                |                     |                |
| API Serial No.<br>05-123-37604-0000 |                | Section<br>23       | Township<br>6N |
| 15-Apr-2015                         |                | Range<br>65W        |                |
| Logging Date                        |                |                     |                |
| Run Number                          | Run 1          |                     |                |
| Depth Driller                       | 7250.0 F       |                     |                |
| Schlumberger Depth                  | 6945.0 F       |                     |                |
| Bottom Log Interval                 | 6945.0 F       |                     |                |
| Top Log Interval                    | 60.0 F         |                     |                |
| Casing Fluid Level                  | 8.0 F          |                     |                |
| Salinity                            |                |                     |                |
| Density                             | 8.70 LB/G      |                     |                |
| Fluid Level                         | 8.0 F          |                     |                |
| BIT/CASING/TUBING STRING            |                |                     |                |
| Bit Size                            | 8.750 IN       |                     |                |
| From                                | 6945.0 F       |                     |                |
| To                                  | -999.2 F       |                     |                |
| Casing Size                         | 7.00 IN        |                     |                |
| Weight                              | 26.00 LB/F     |                     |                |
| Grade                               | P110           |                     |                |
| From                                | 30.0 F         |                     |                |
| To                                  | 7240.0 F       |                     |                |
| Max Recorded Temp                   | 235.1          |                     |                |
| Logger on bottom (date)             | 15-Apr-2015    |                     |                |
| Location                            | Fort Morgan CO |                     |                |
| Recorded By                         | Keri Ondrus    |                     |                |
| Witnessed By                        |                |                     |                |

DEPTH SUMMARY LISTING

DEPTH SYSTEM EQUIPMENT

| Depth Measuring Device  | Tension Device   | Logging Cable                                 |
|---|--|---|
| Type:<br>Serial Number:<br>Calibration Date:<br>Calibration Cable Type:<br>Wheel Correction 1:<br>Wheel Correction 2: | Type:<br>Serial Number: 1109<br>Calibration Date:<br>Calibrator Serial Number:<br>Number Of Calibration Points:<br>Calibration RMS:<br>Calibration Peak Error: | Serial Number: U711136<br>Length: 17200.00000 |

DISCLAIMER

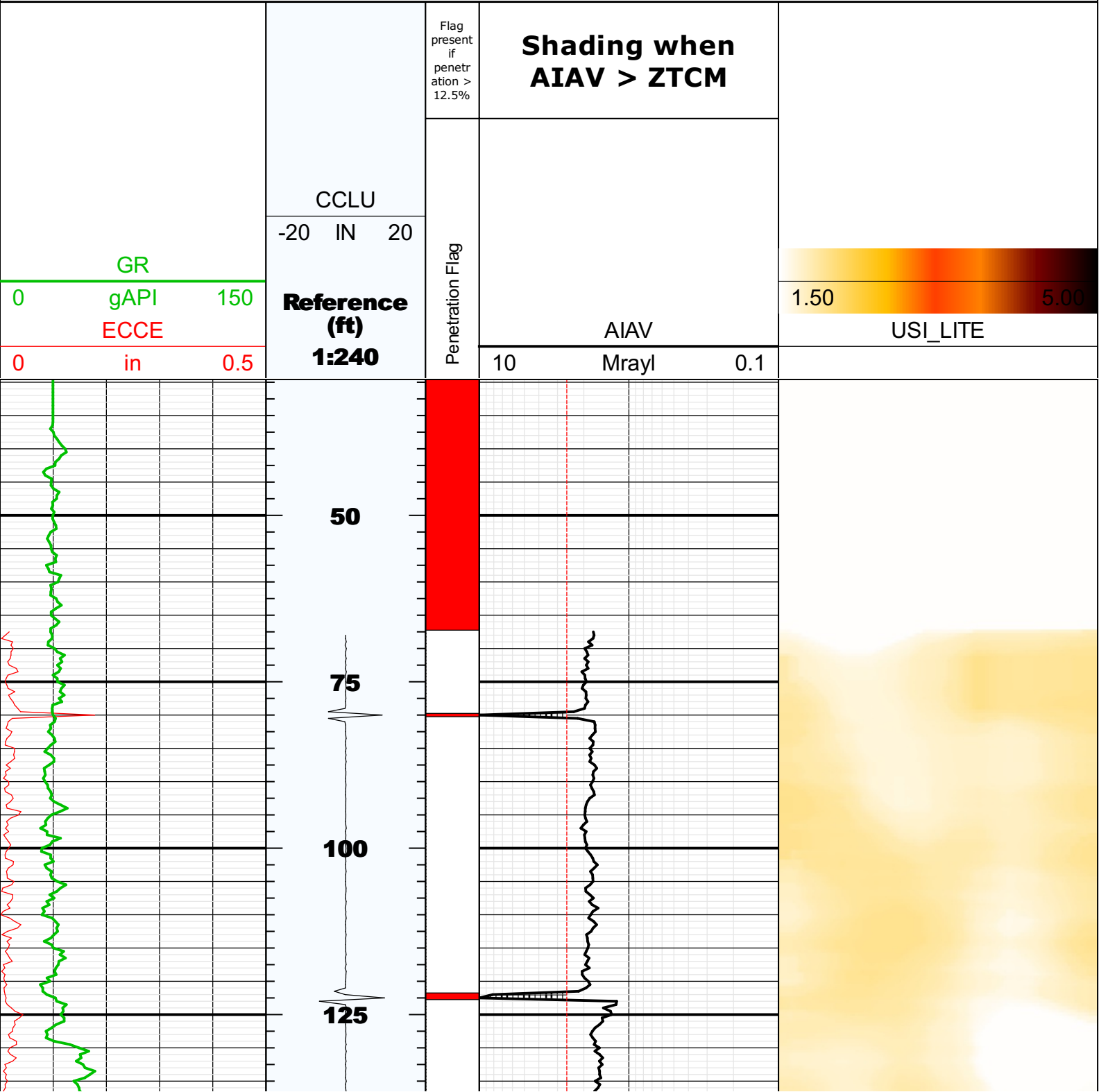
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIIONS ON USE OF THE RECORDED-DATA (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF ANR RELIANCE UPN THE RECORDED-DATA; AND (c)CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISIONS MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA

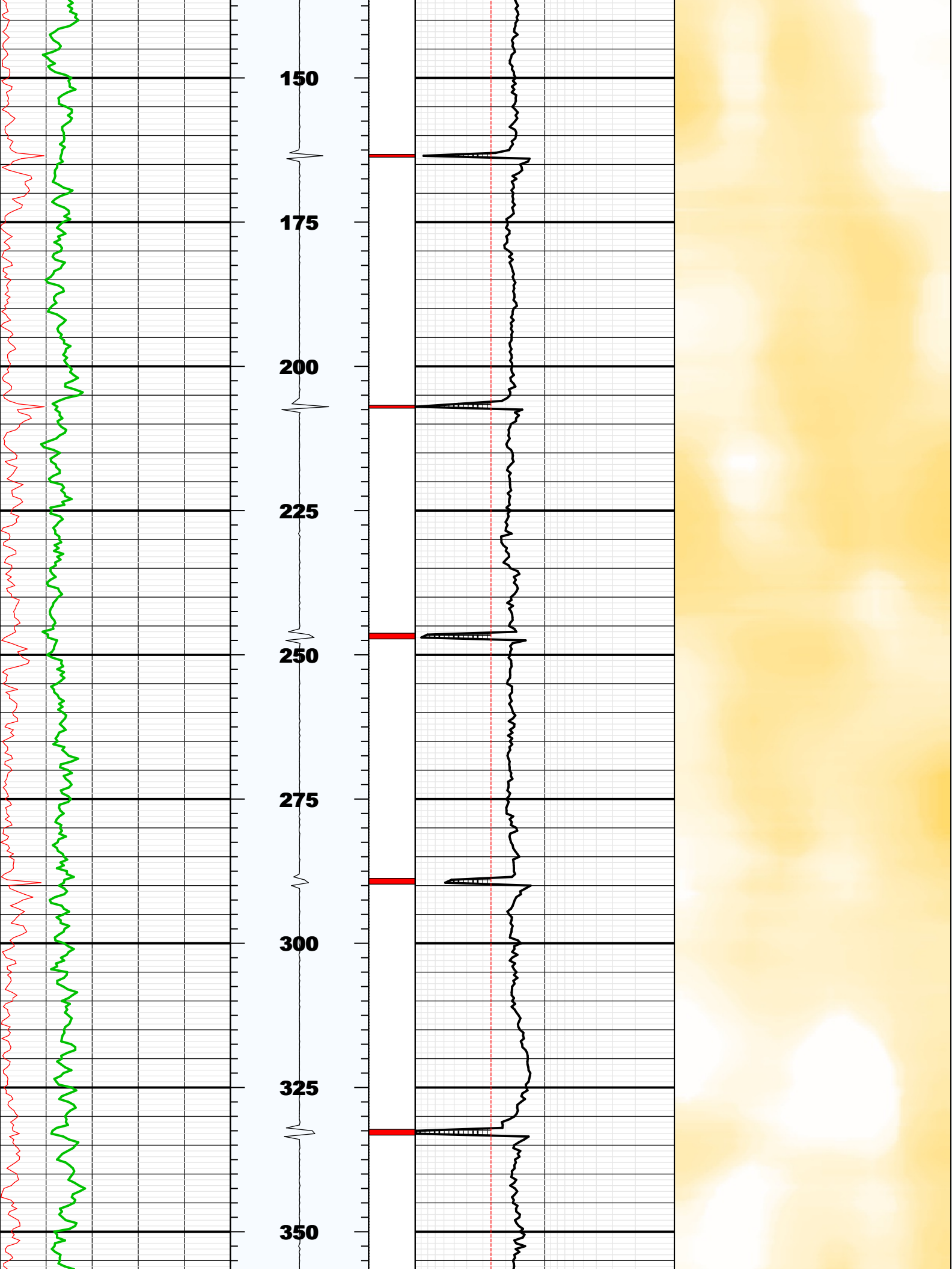
This is the first run in hole.  
Toolstring run as per toolsketch.  
Log objective Cement Evaluation  
0 PSI repeat pass and 2500 PSI main pass.  
Estimated TOC @ '. Expected TOC @ 1500'.  
Top of 4.5 liner at 7049.8'.  
Bottom log interval at 6945'. Lost tension and could not spin sub below this point.  
Bottom hole temperature was 235.14 degF.

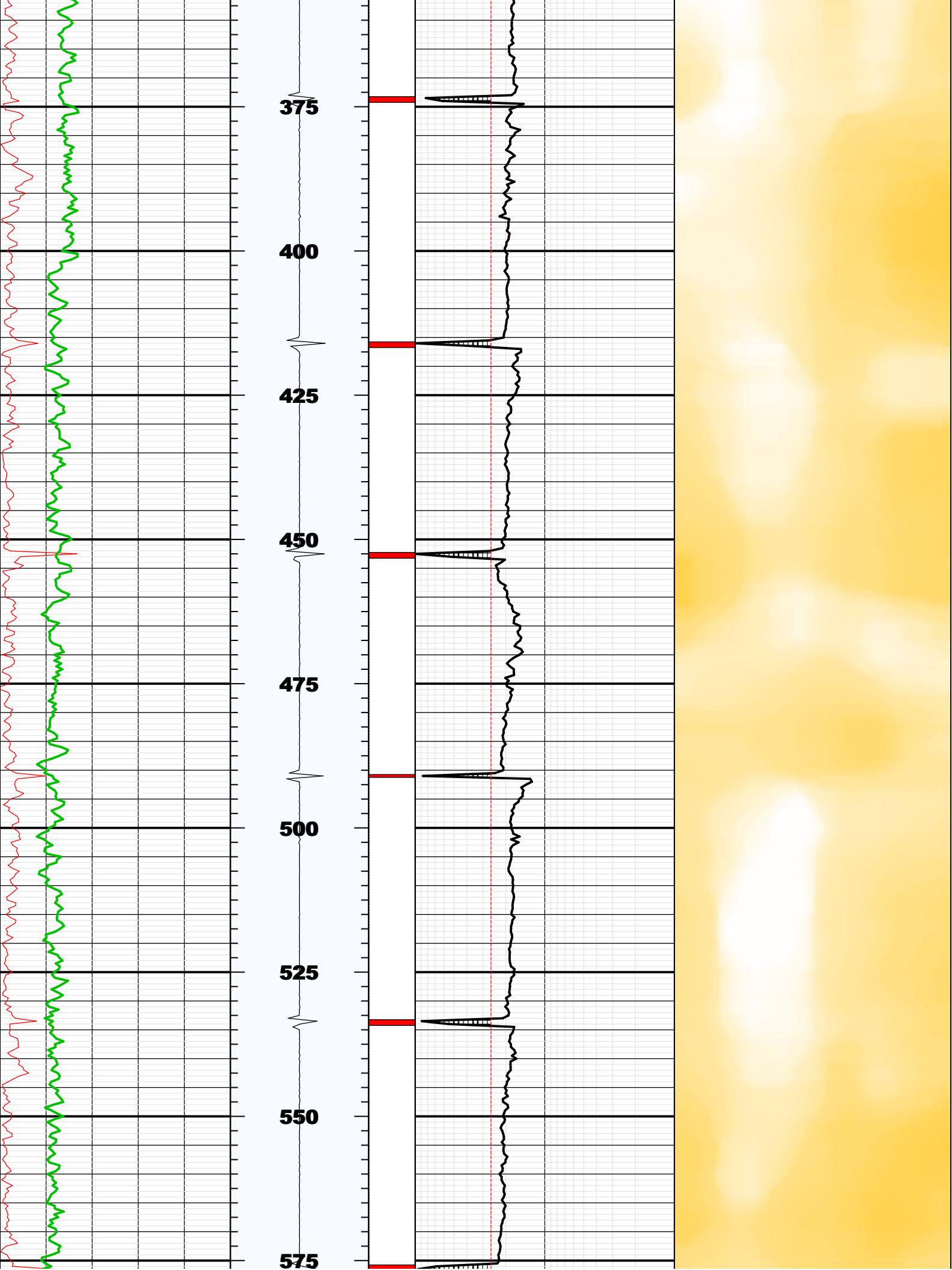
Thank you for choosing Schlumberger Wireline!  
SLB crew J. Musgrave I. Derry and K. Ondrus.

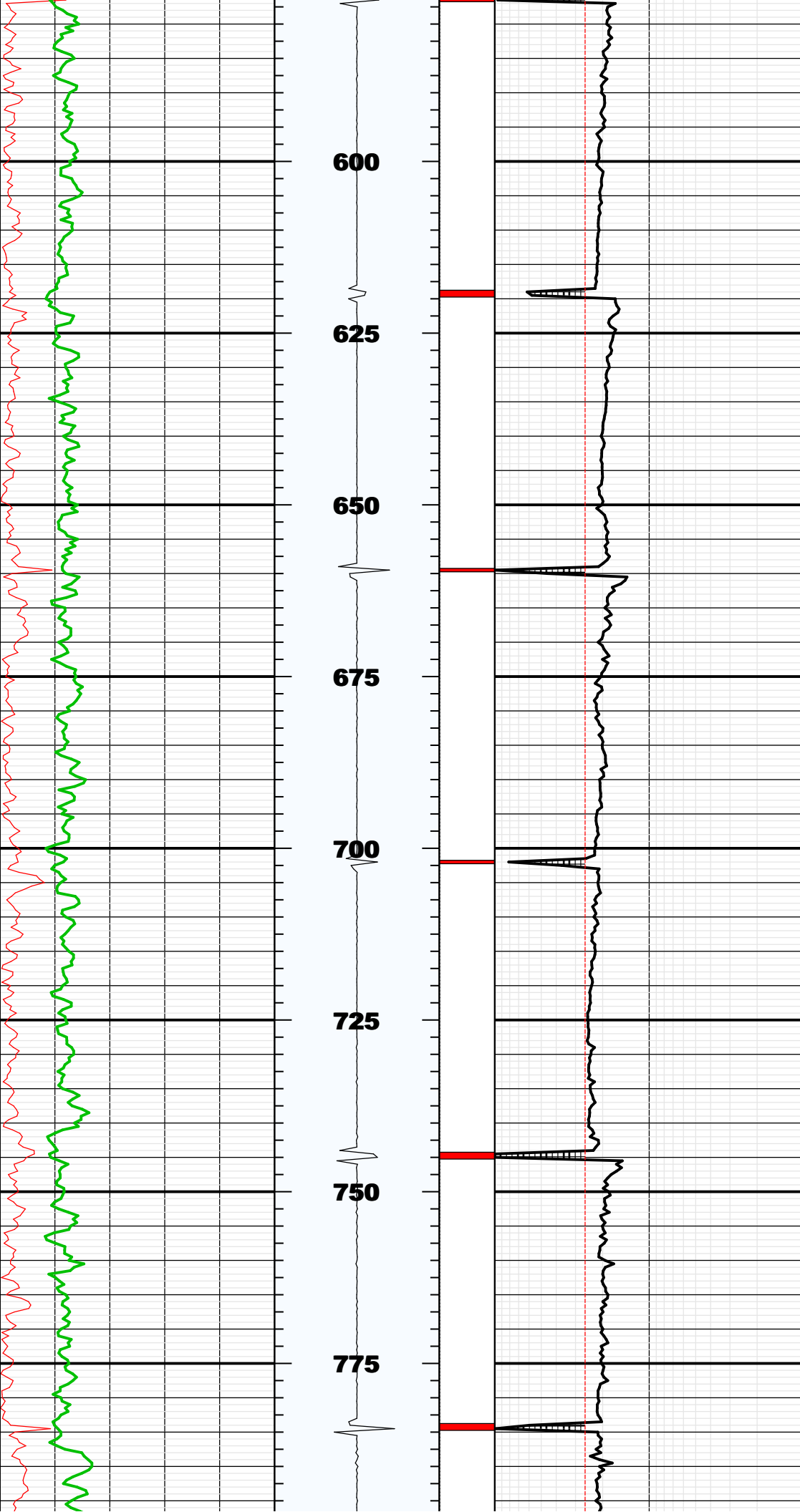
Main Pass

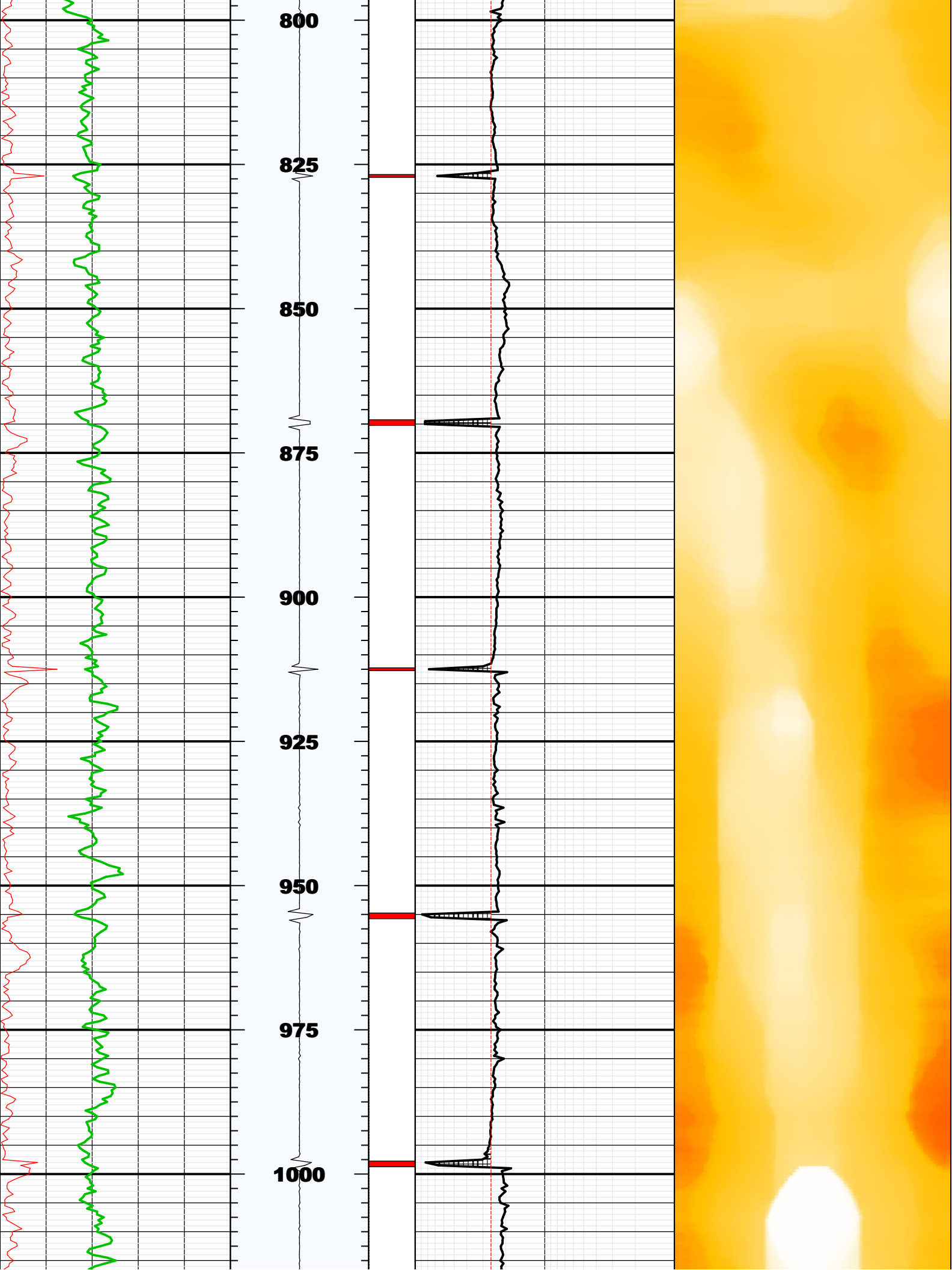
Company: Noble Energy Inc  
Well: Reliance E23-65-1HN  
Field: Wattenberg

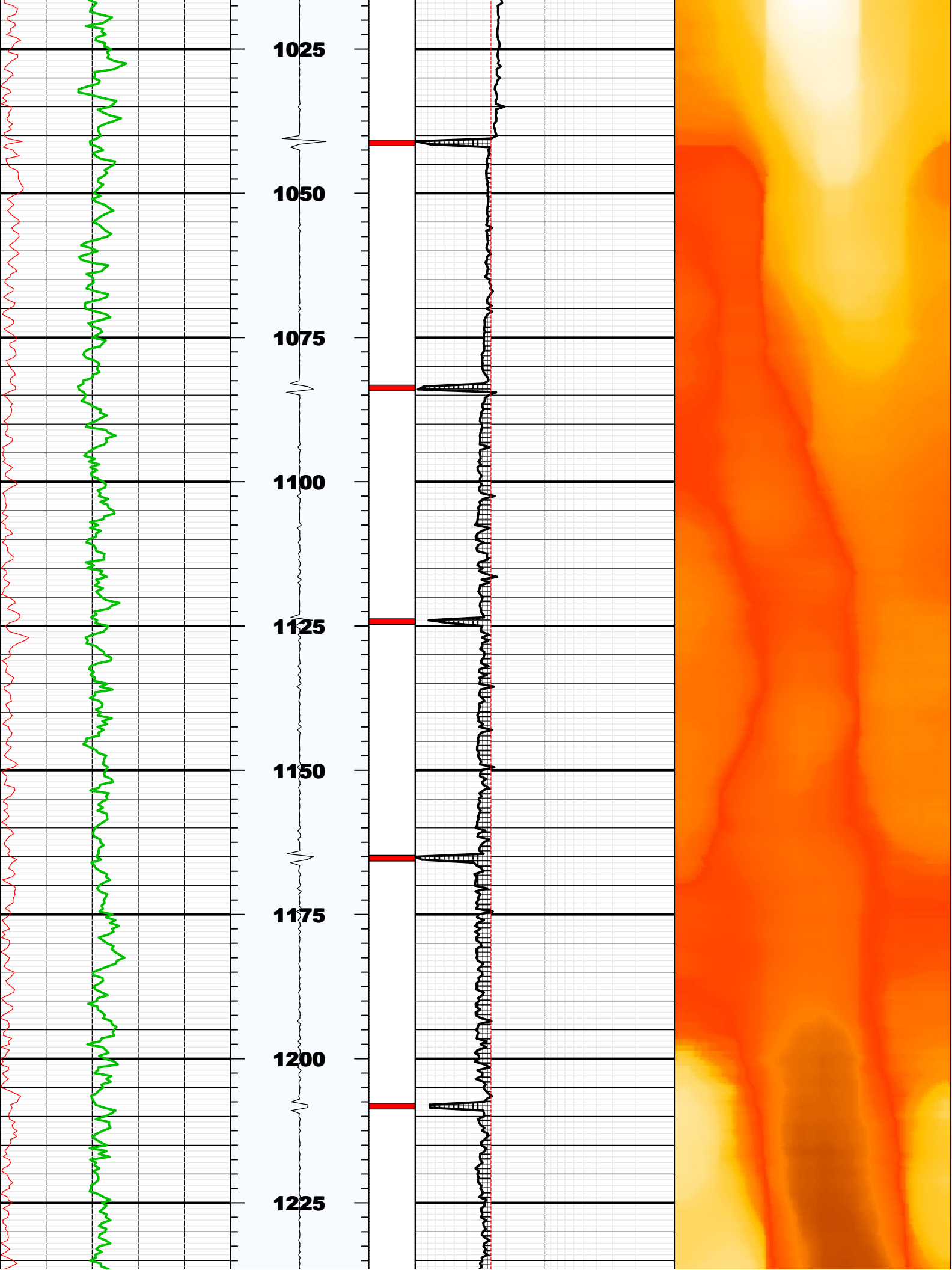




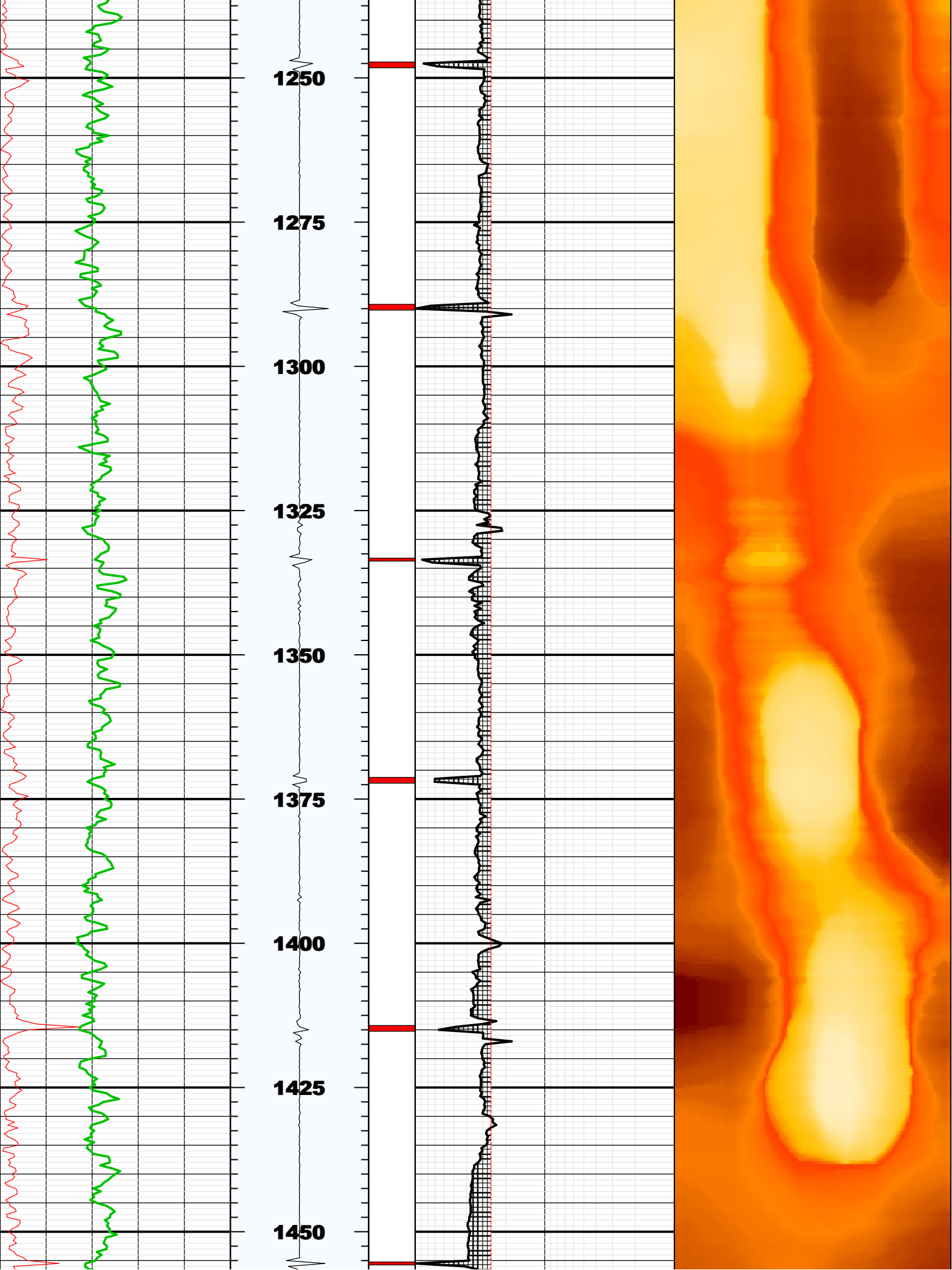


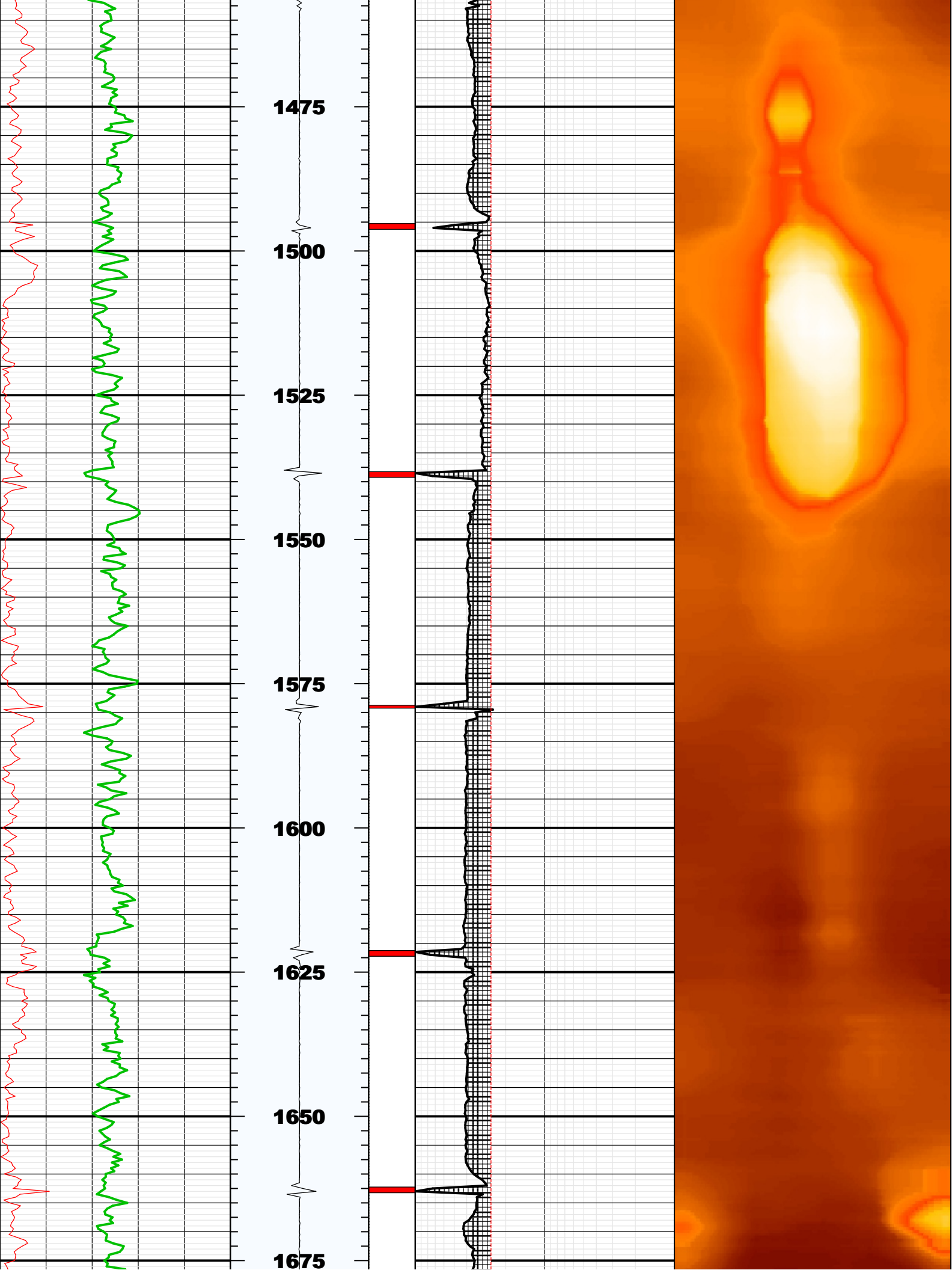


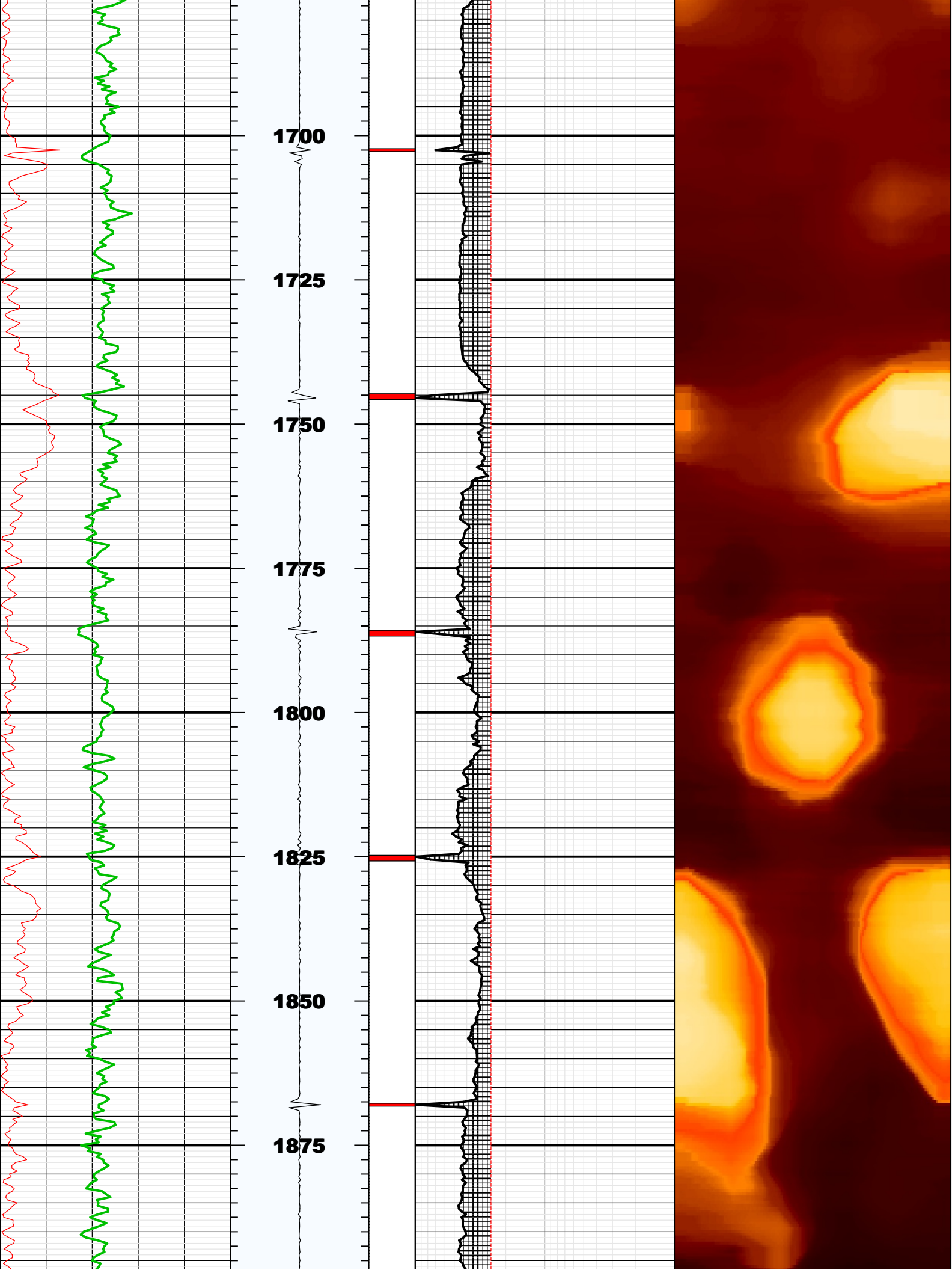


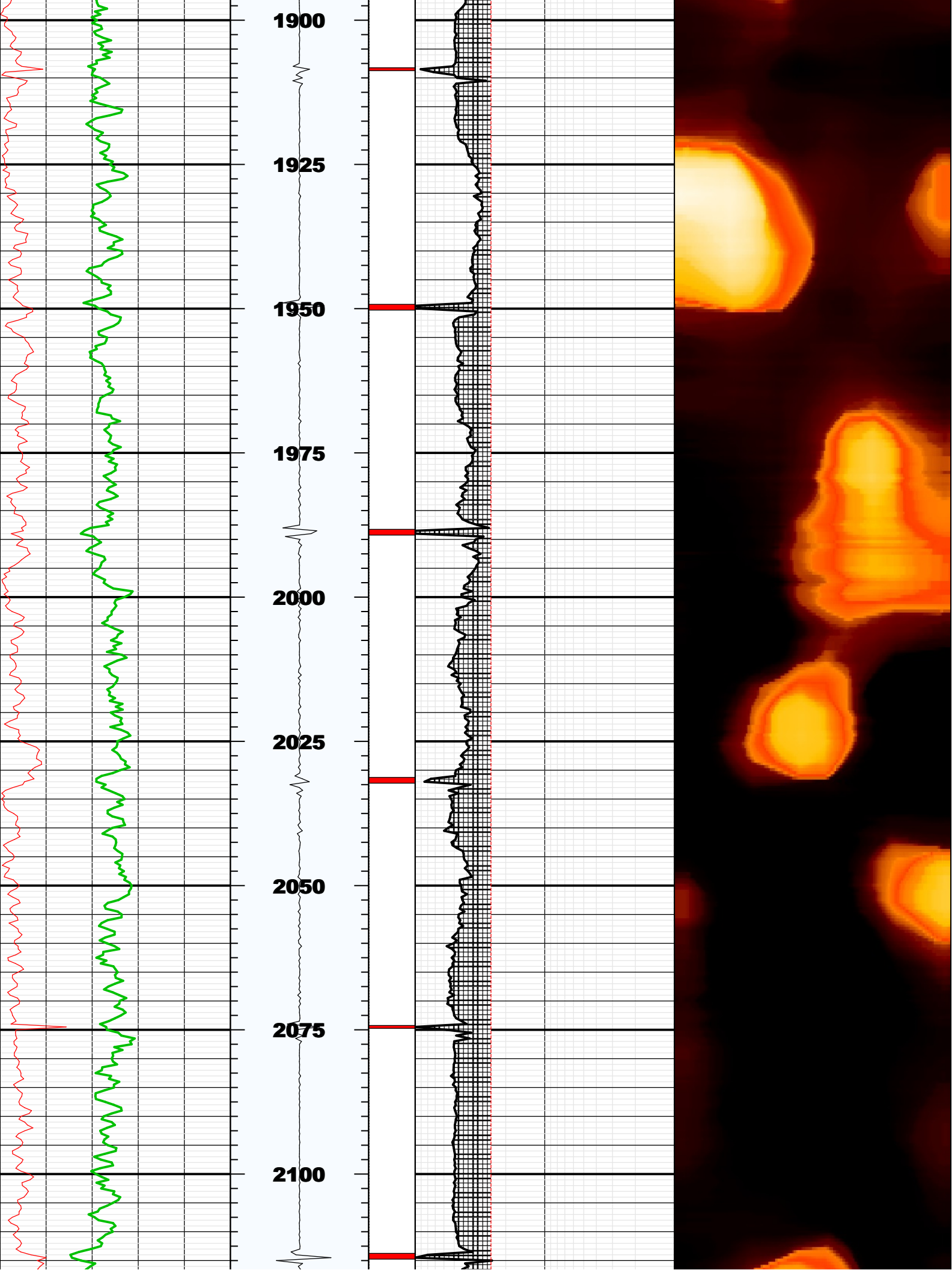




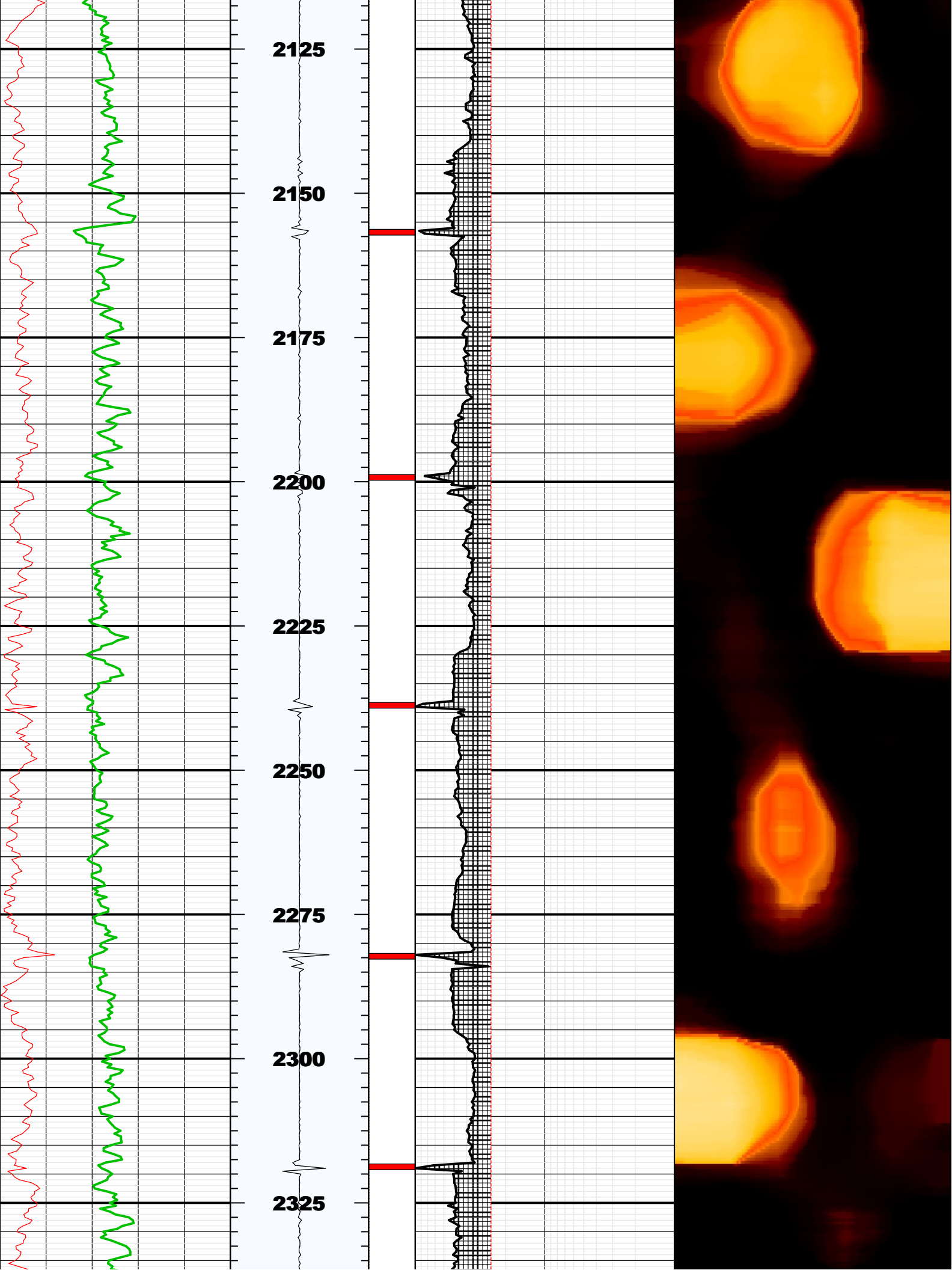


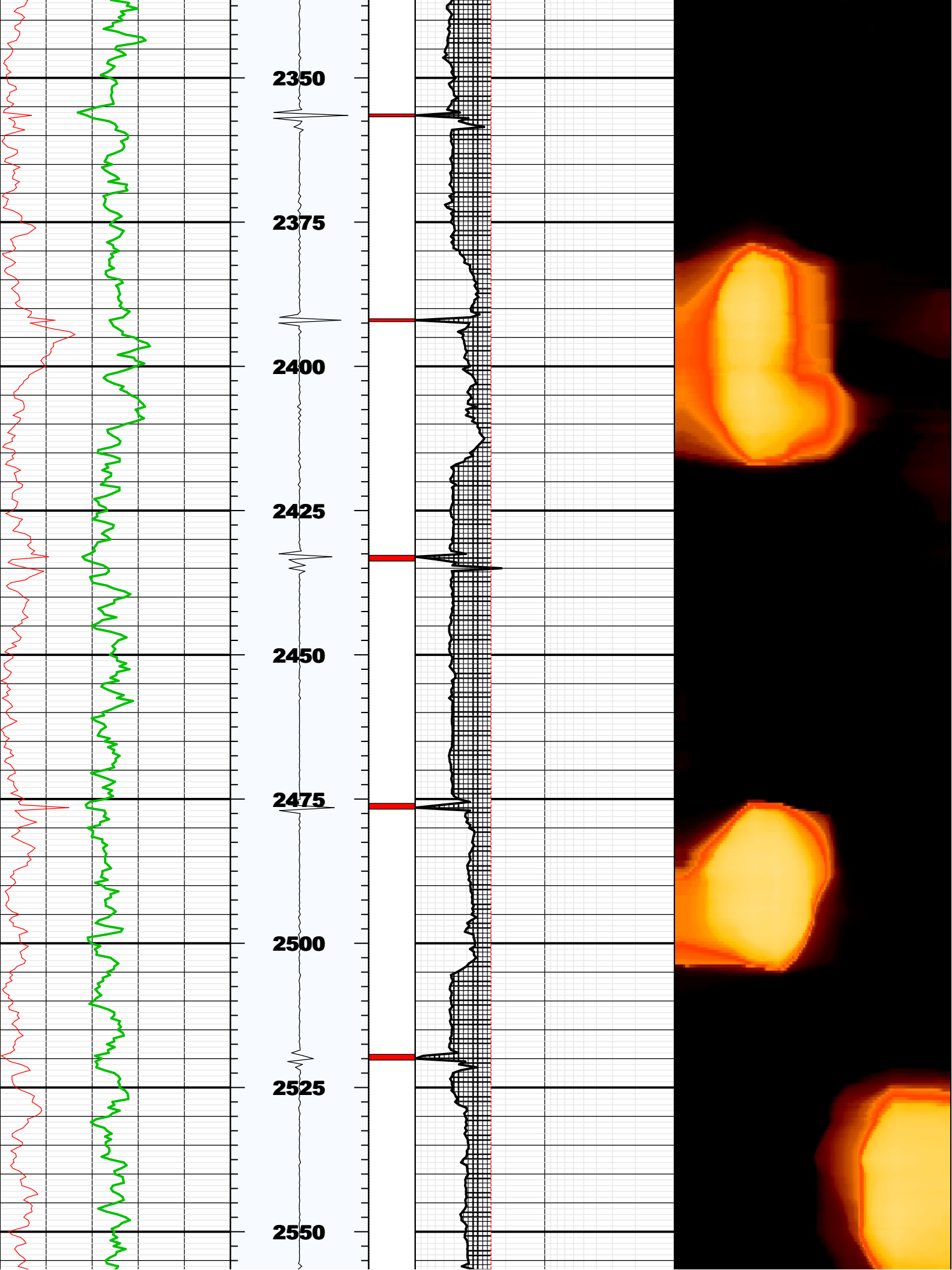


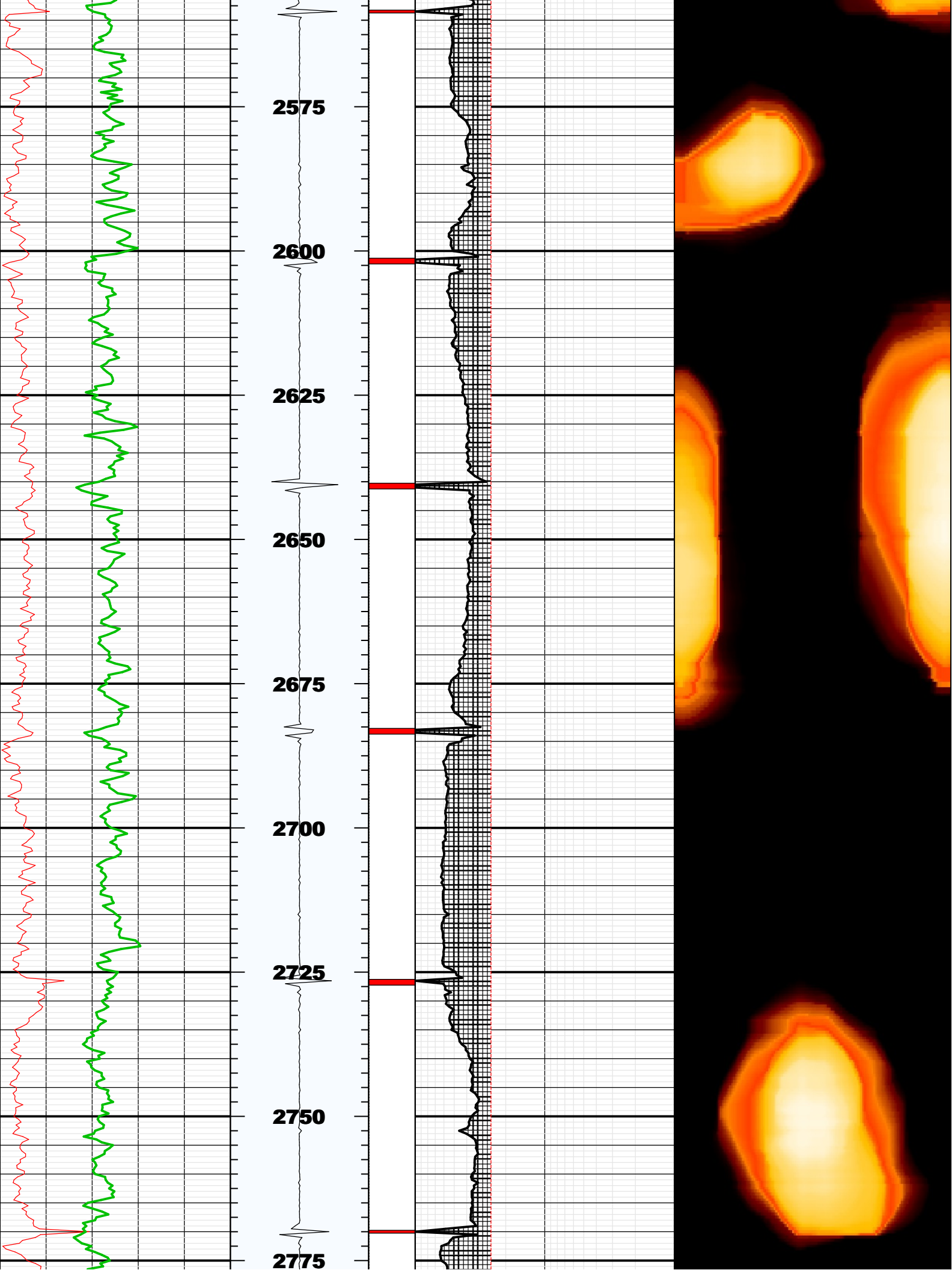


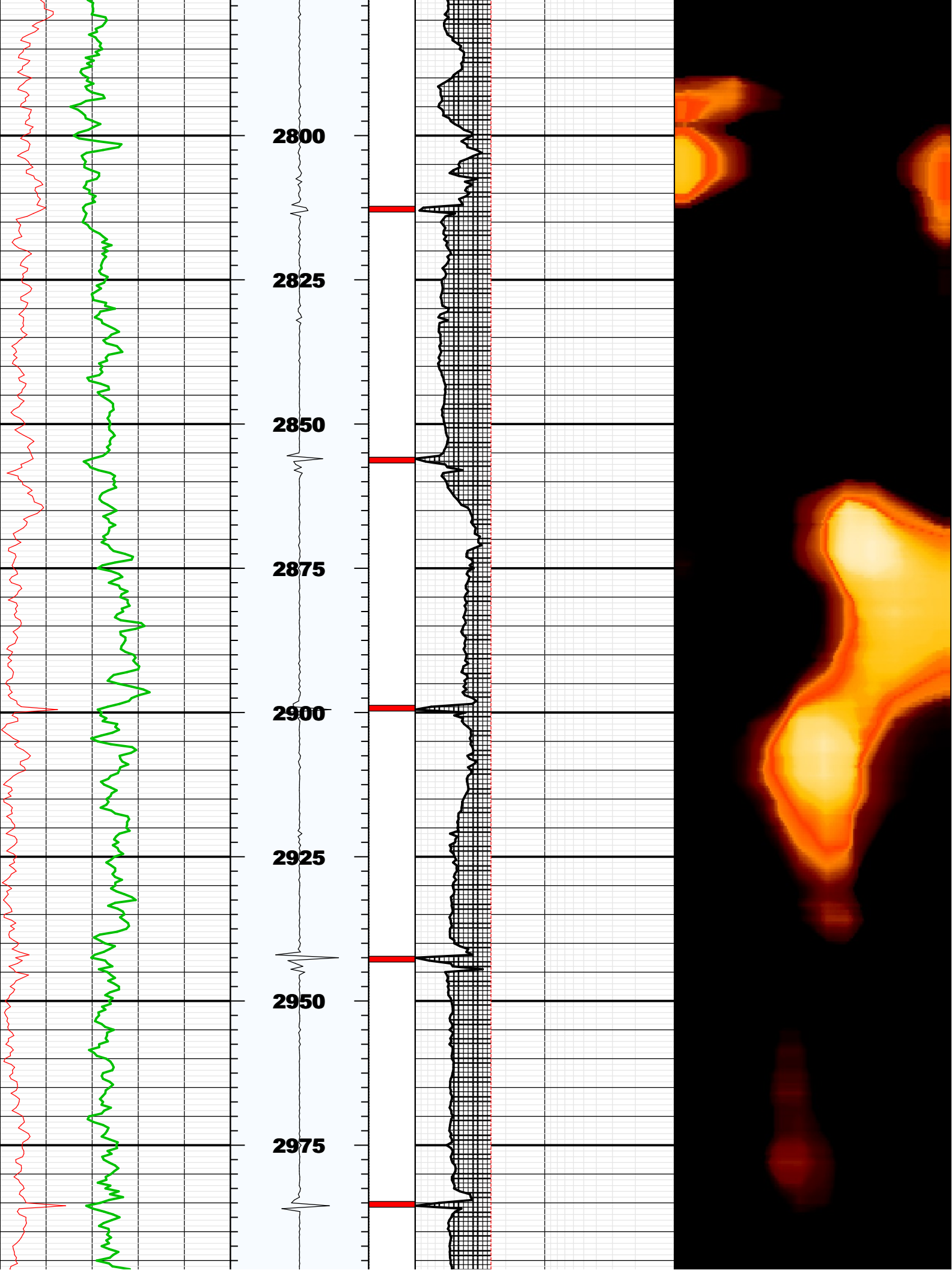




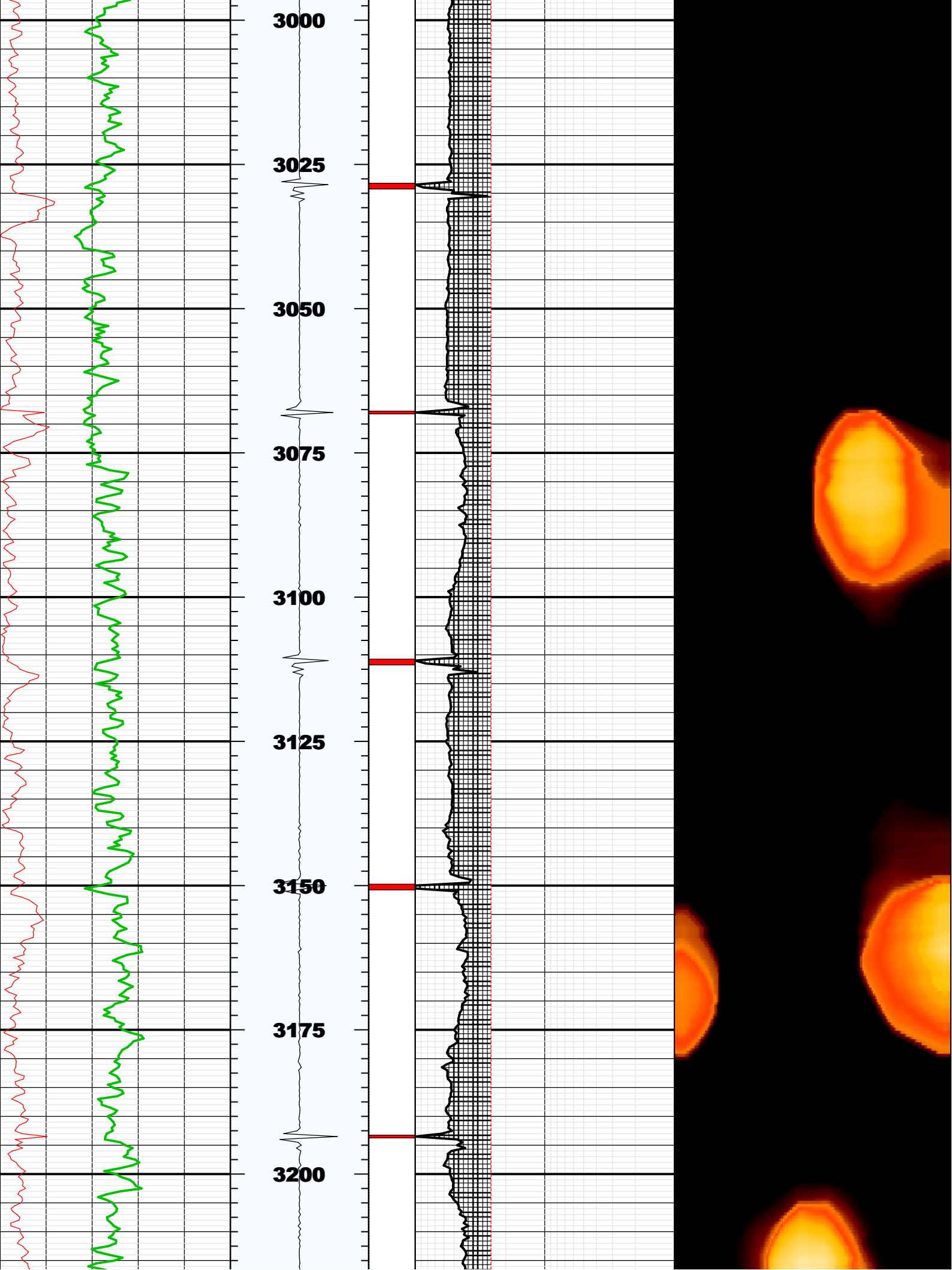


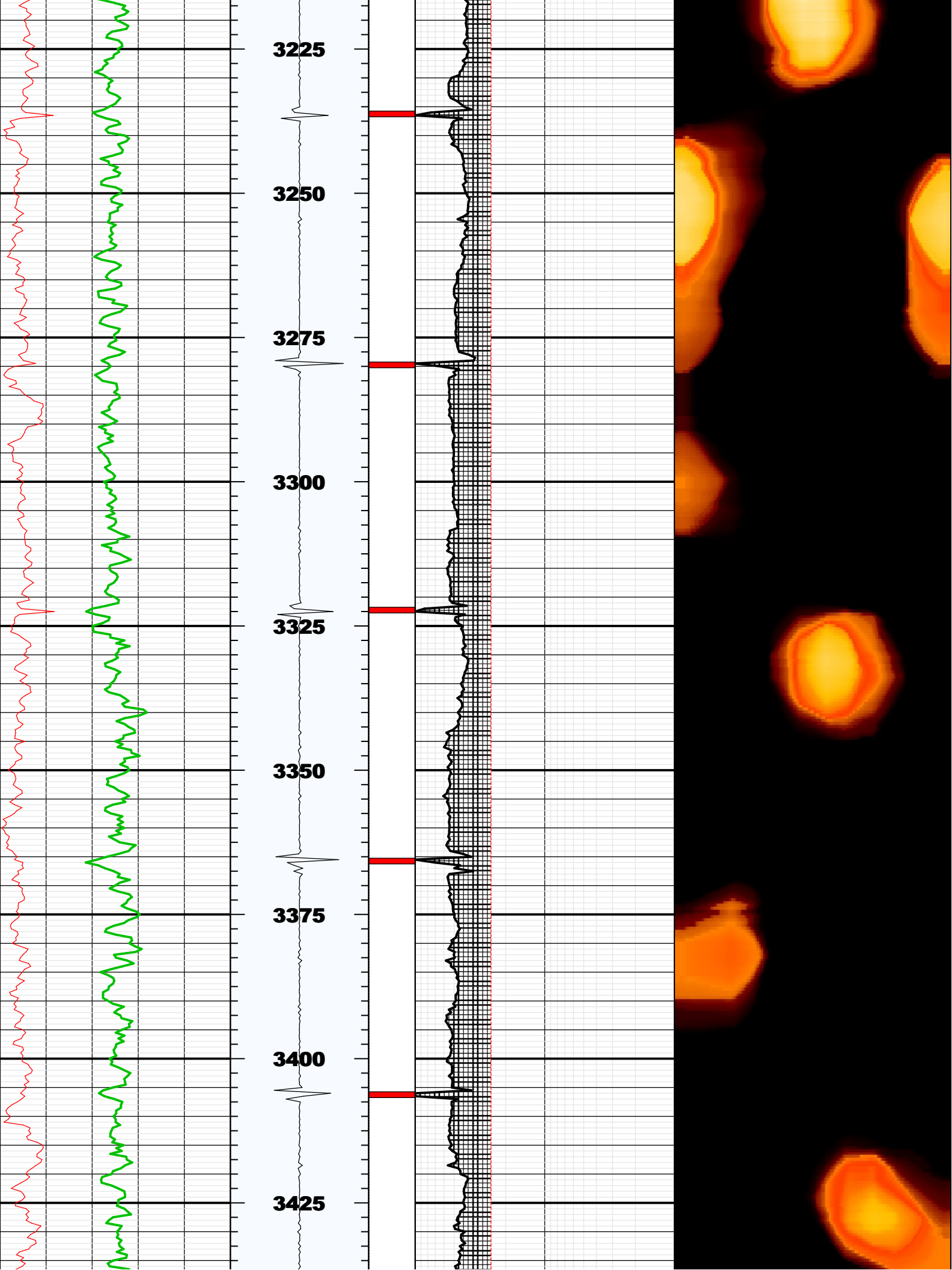


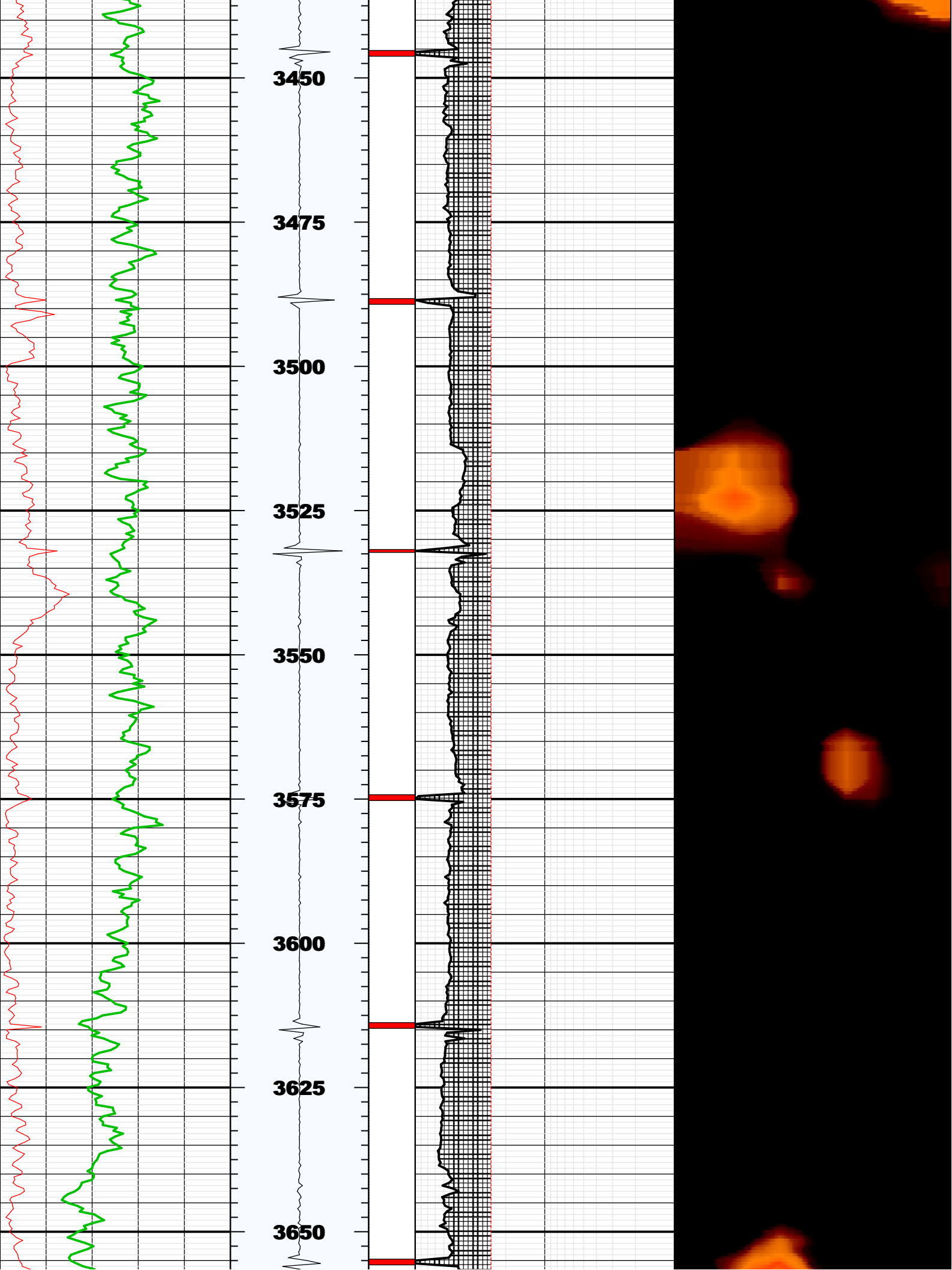


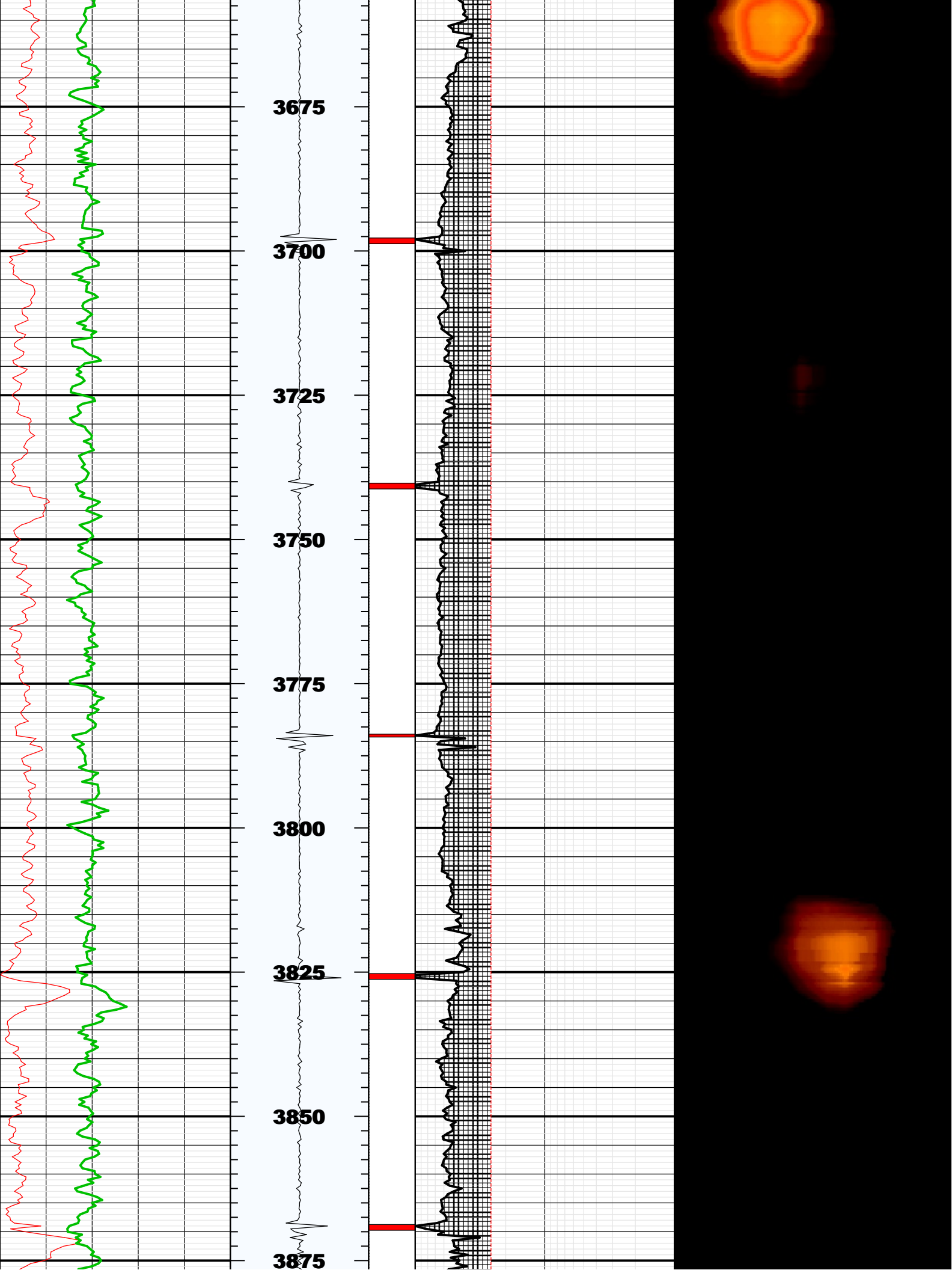


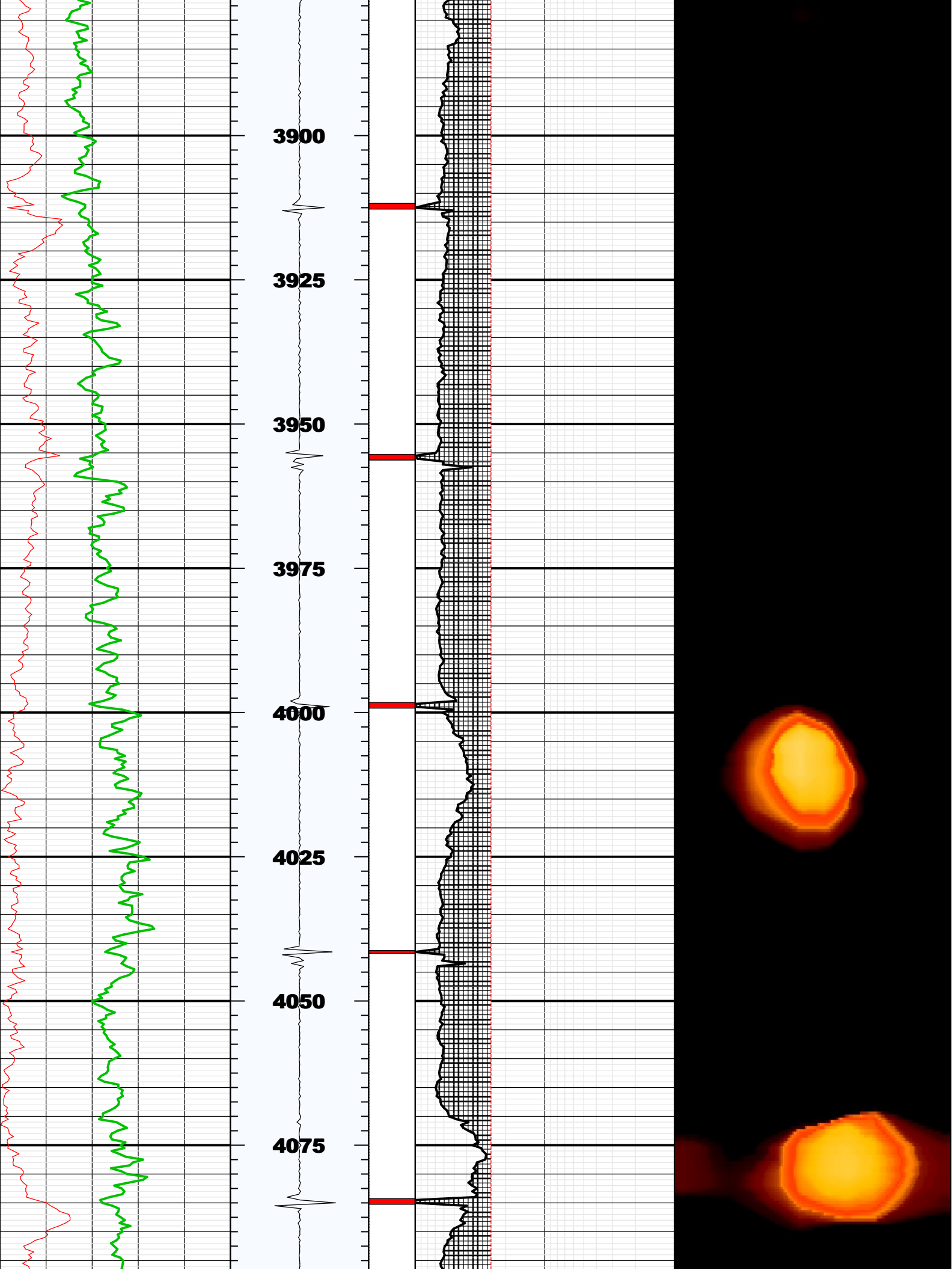


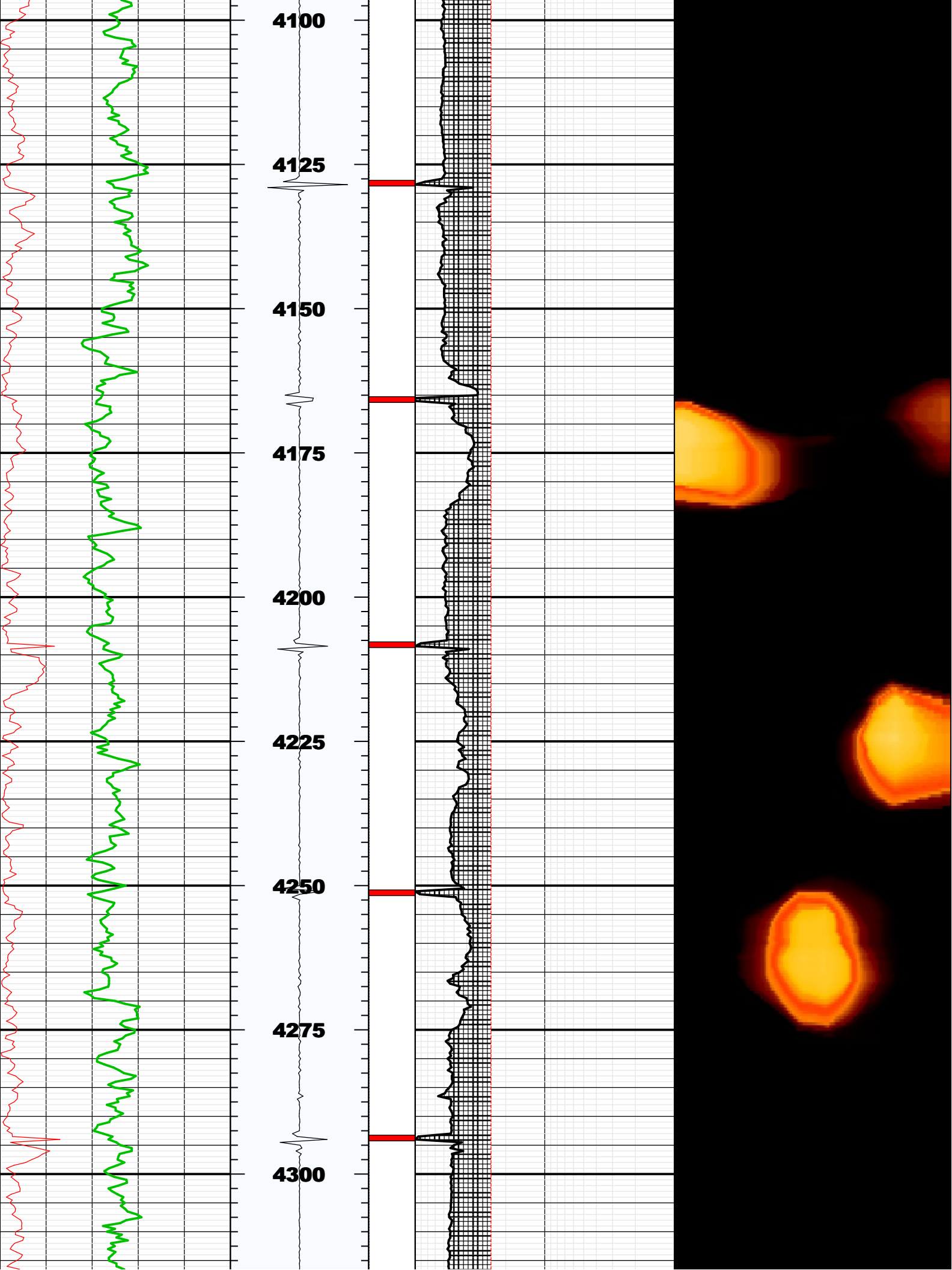




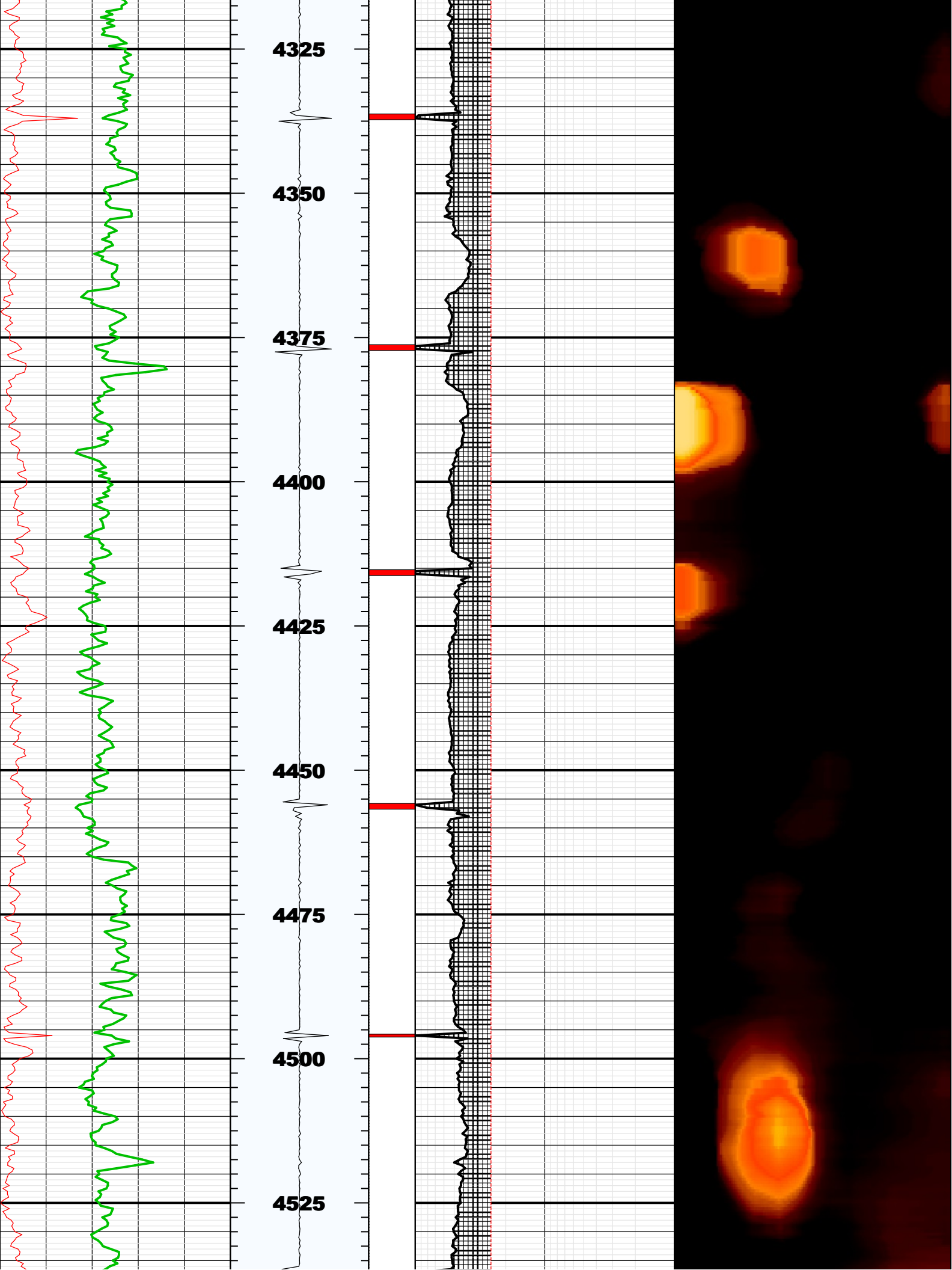


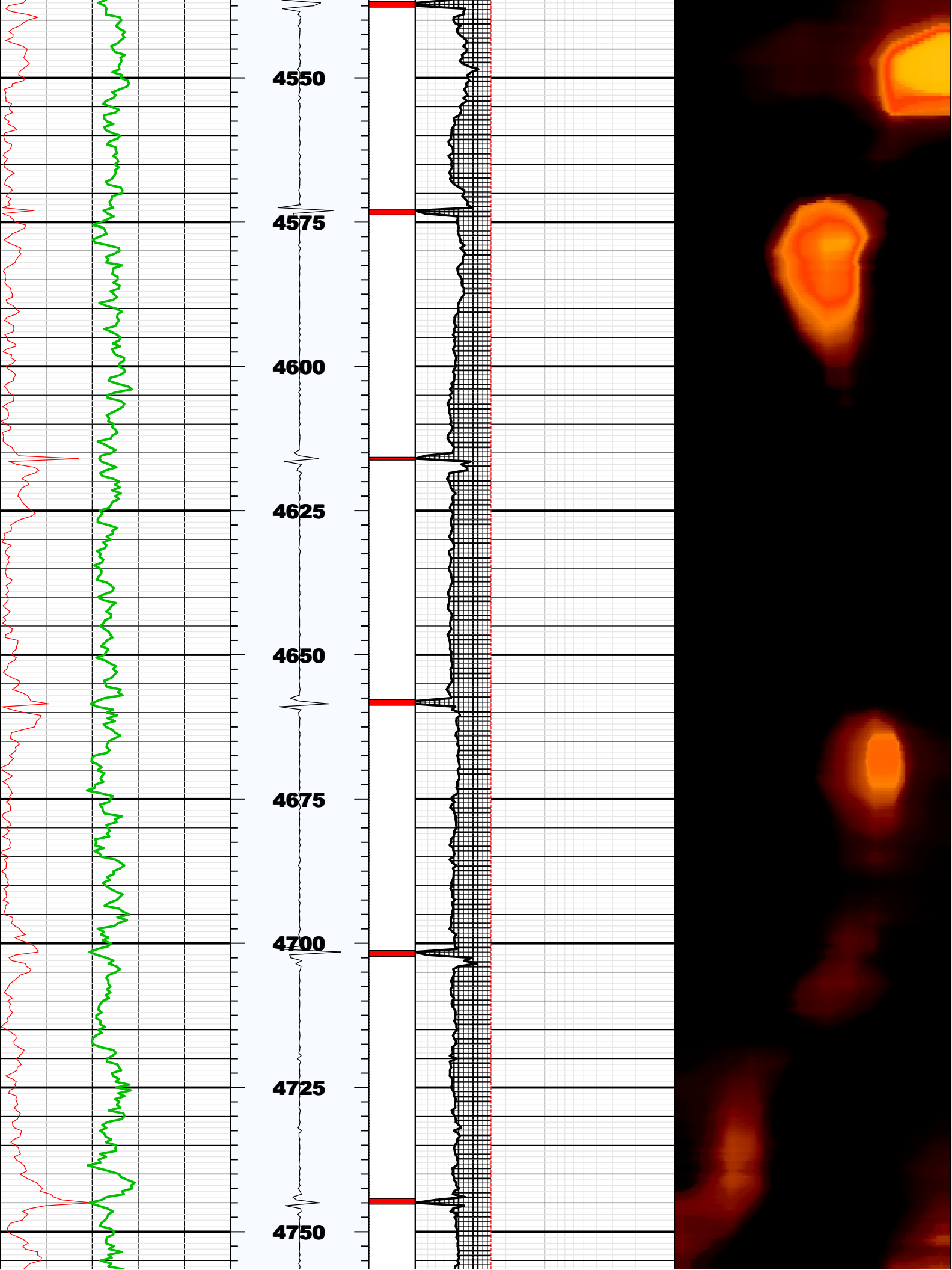




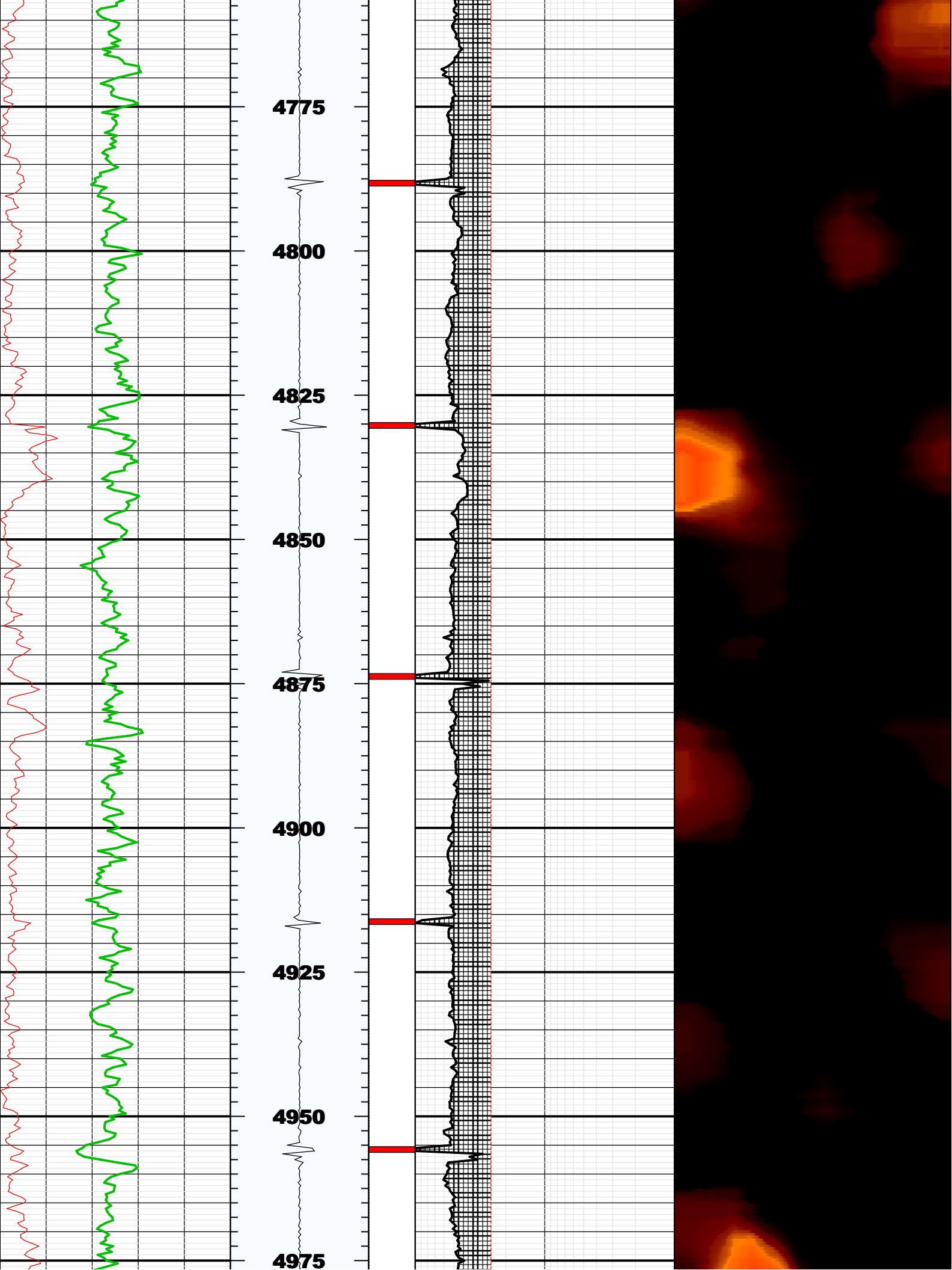


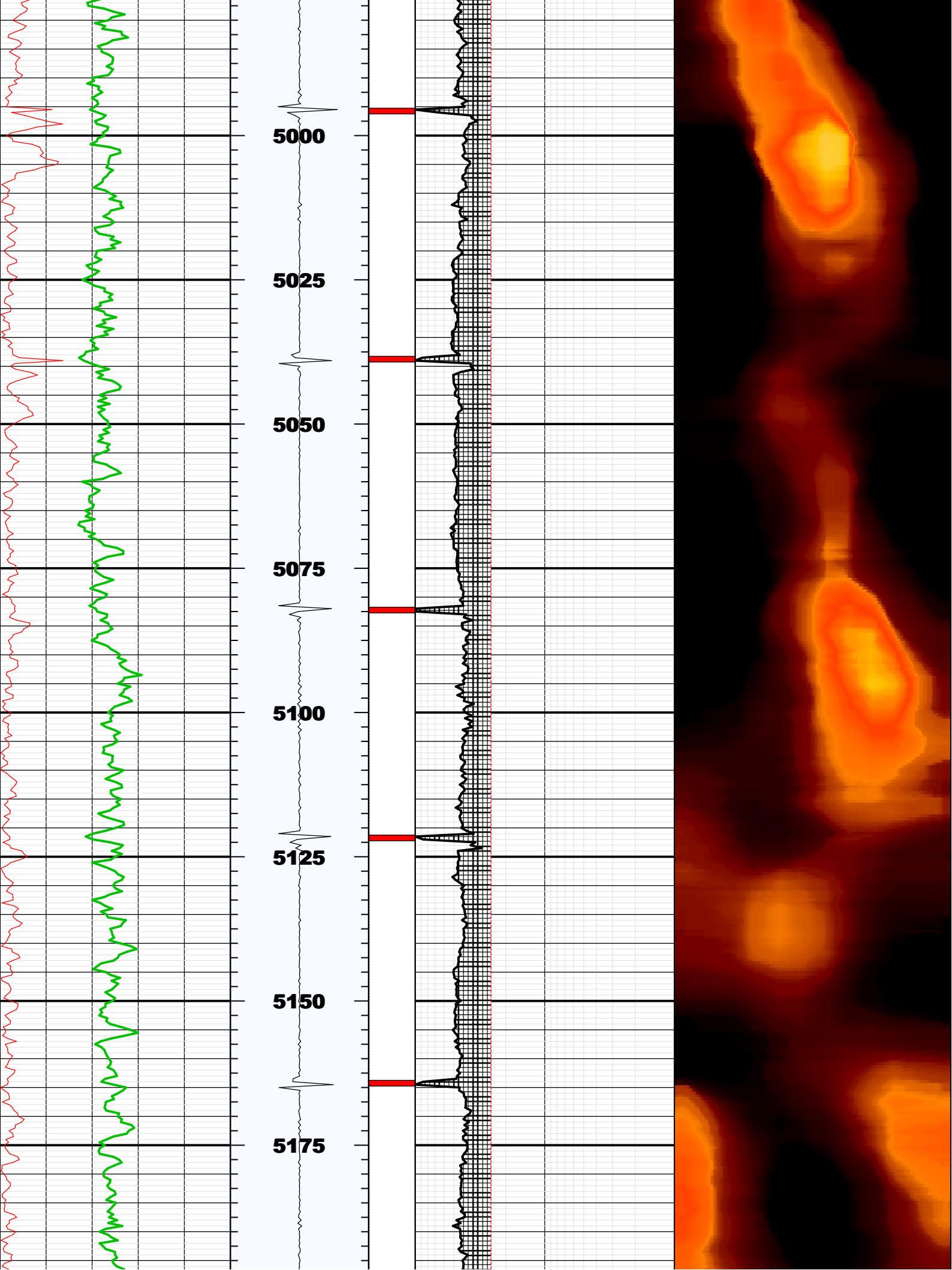


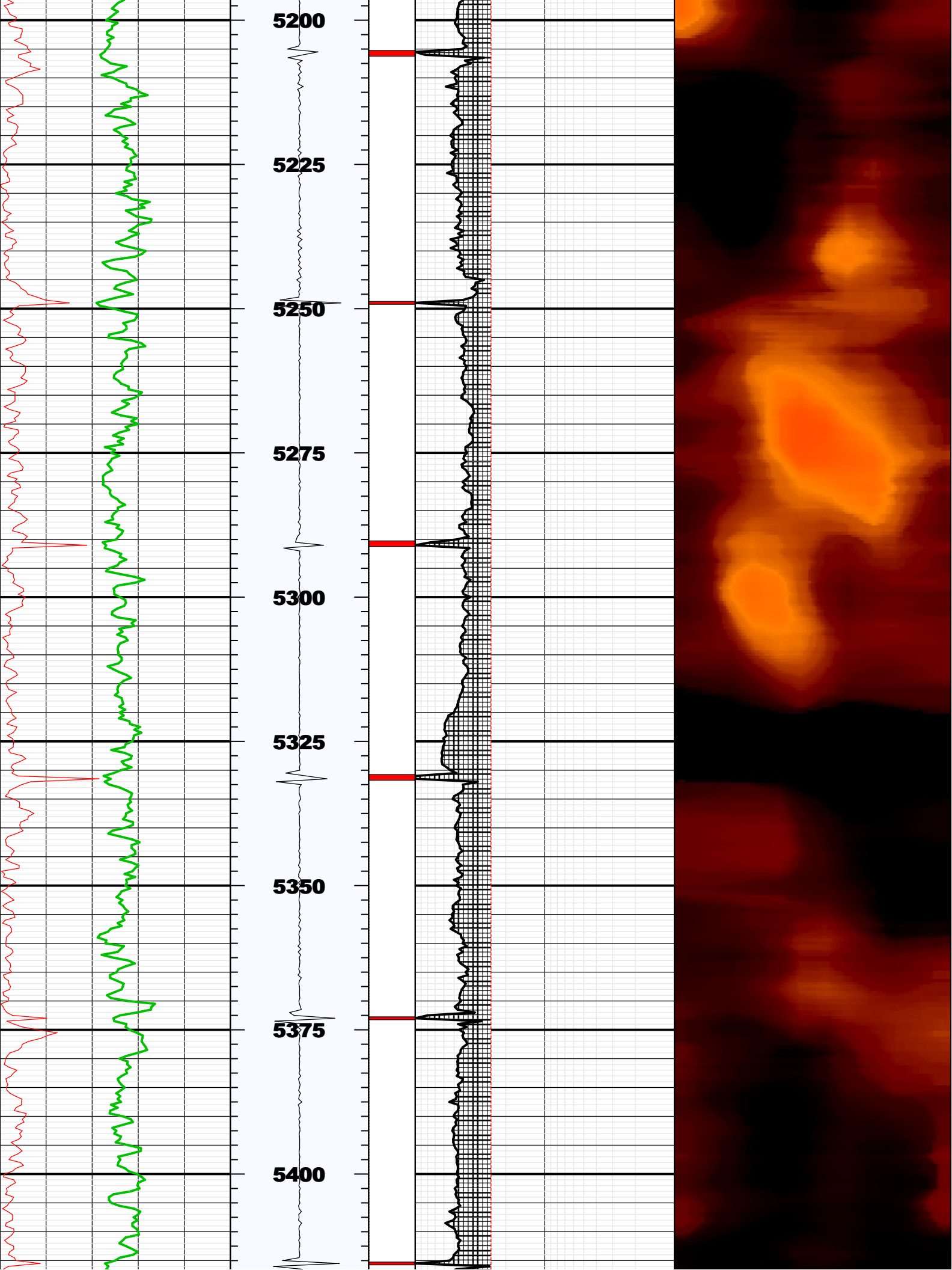


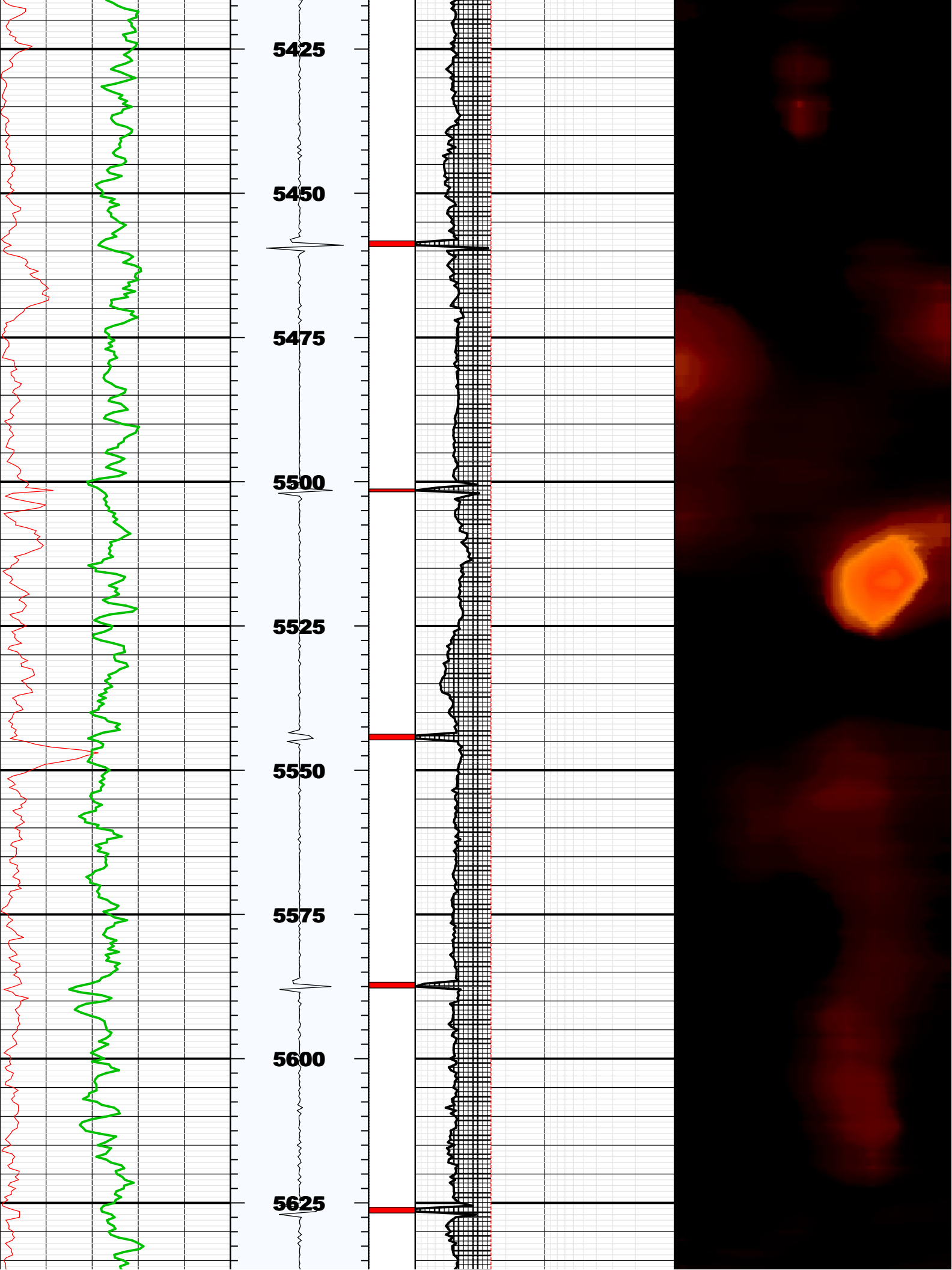


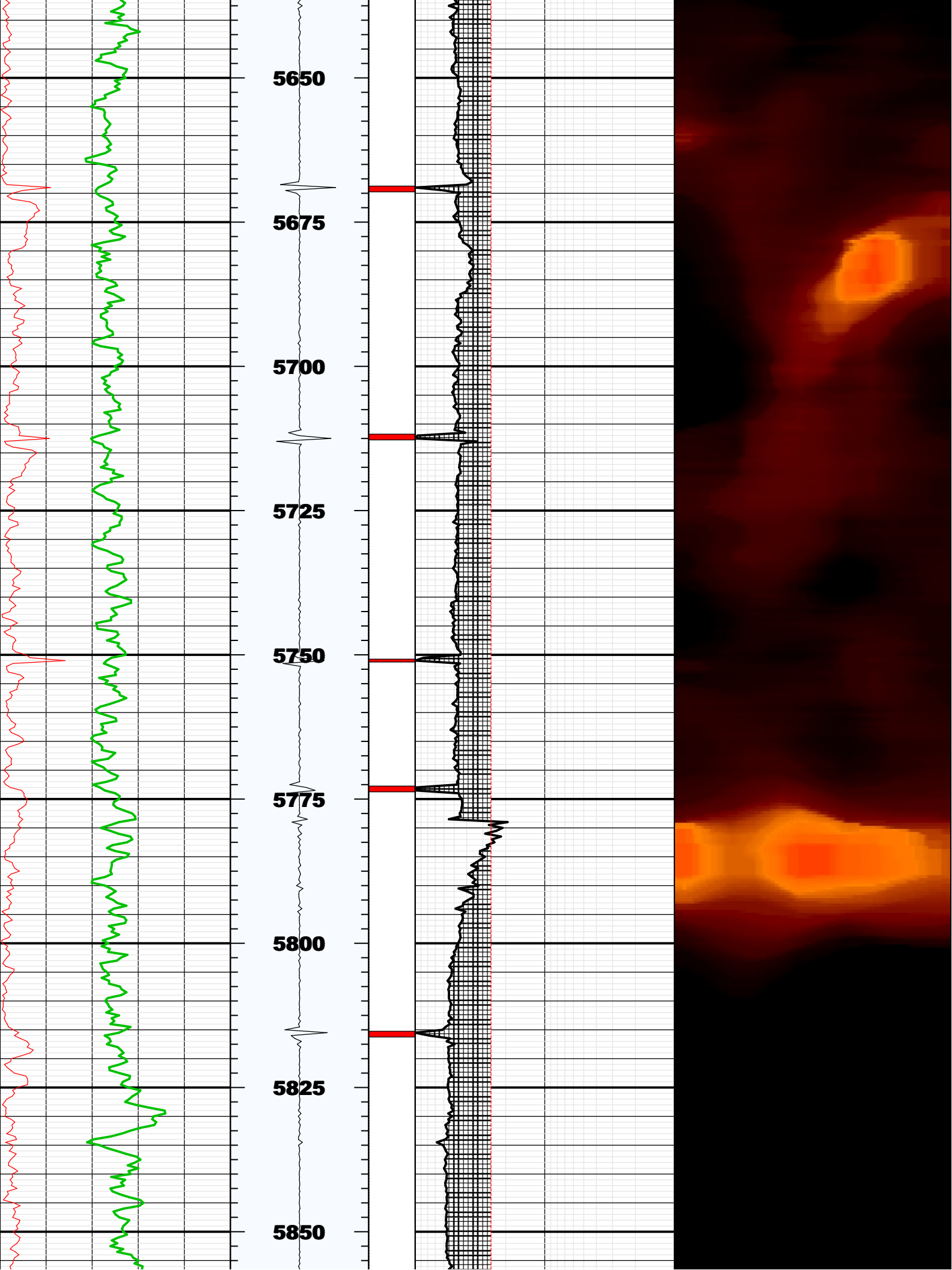




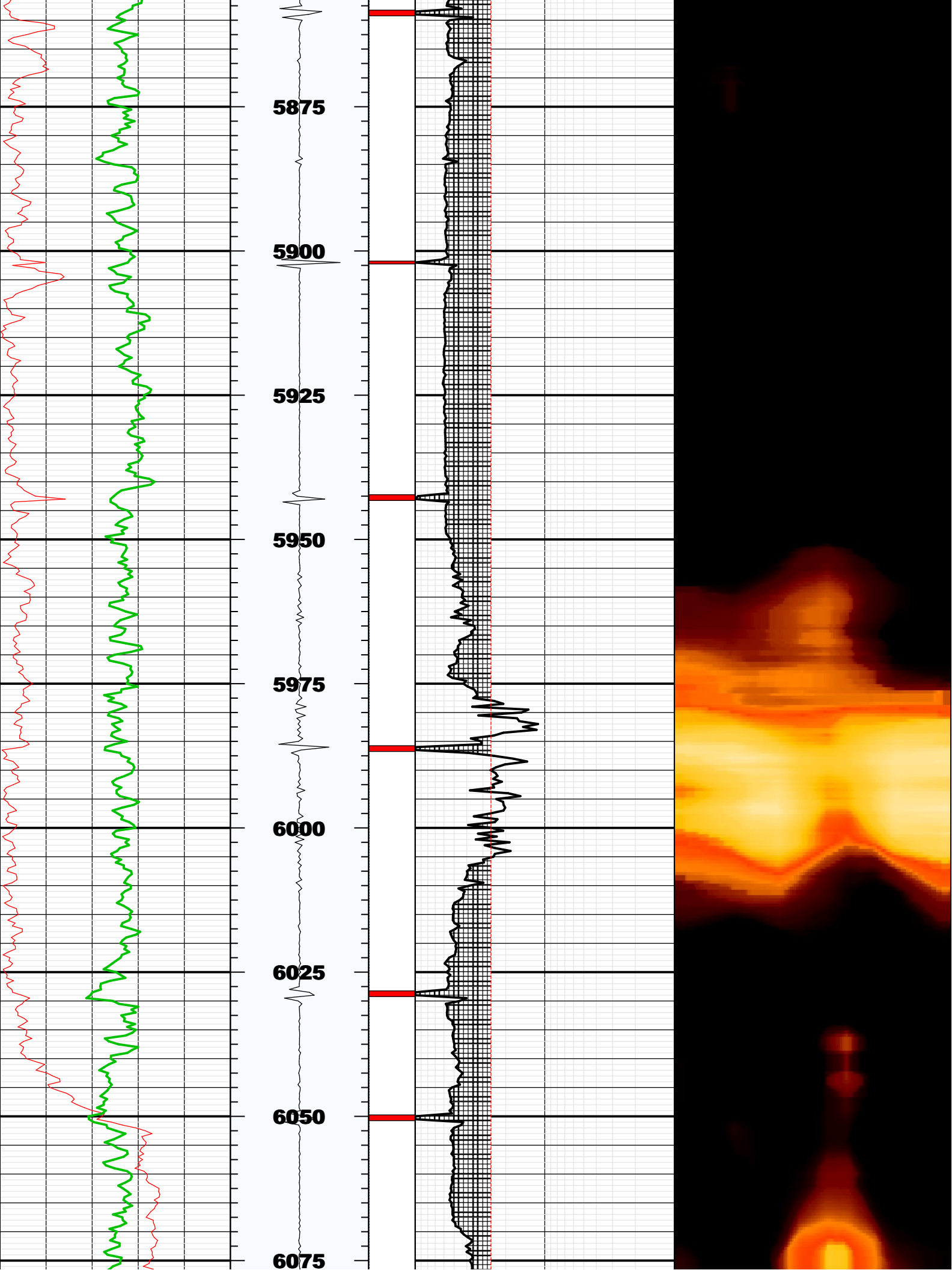


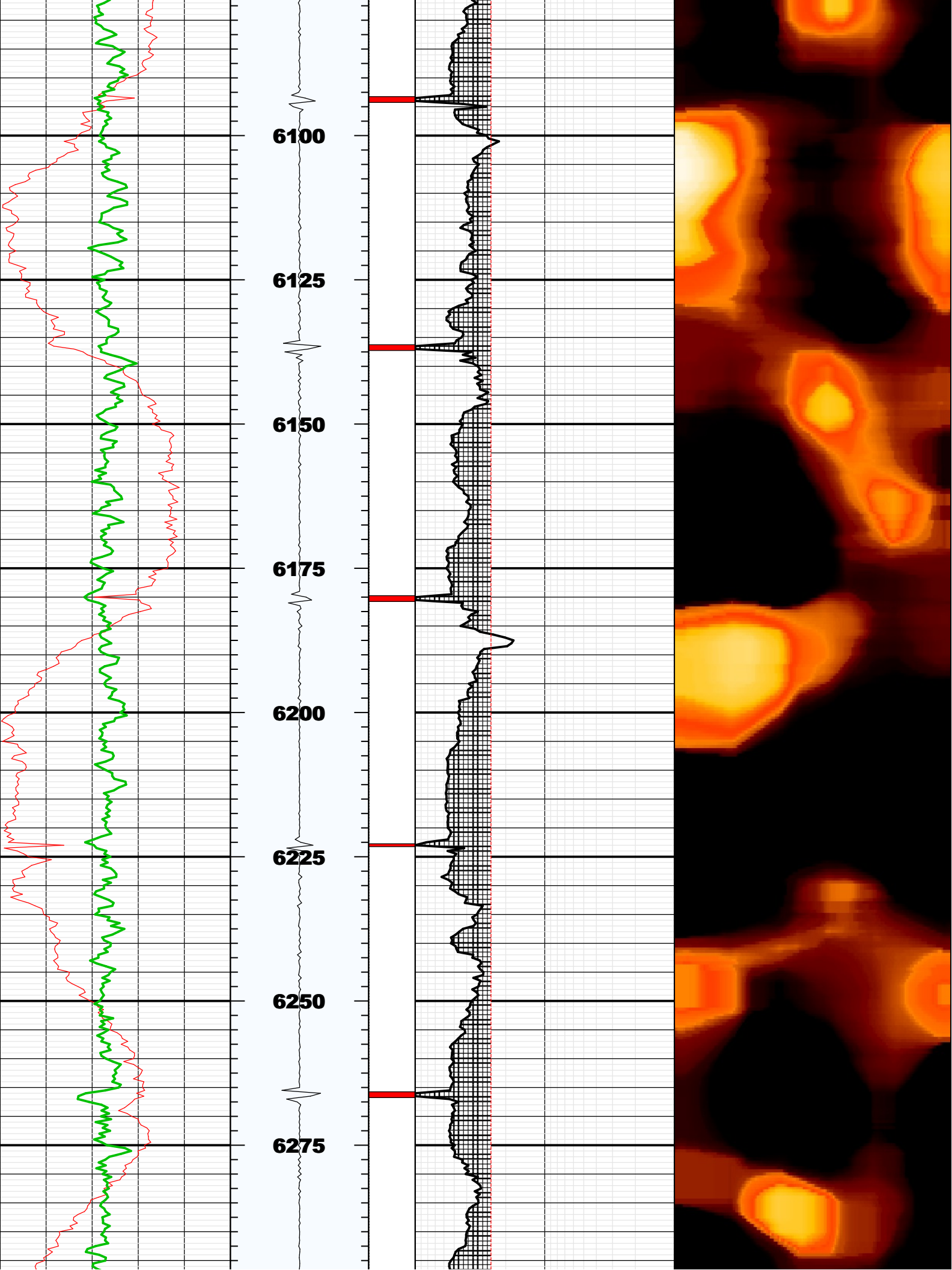


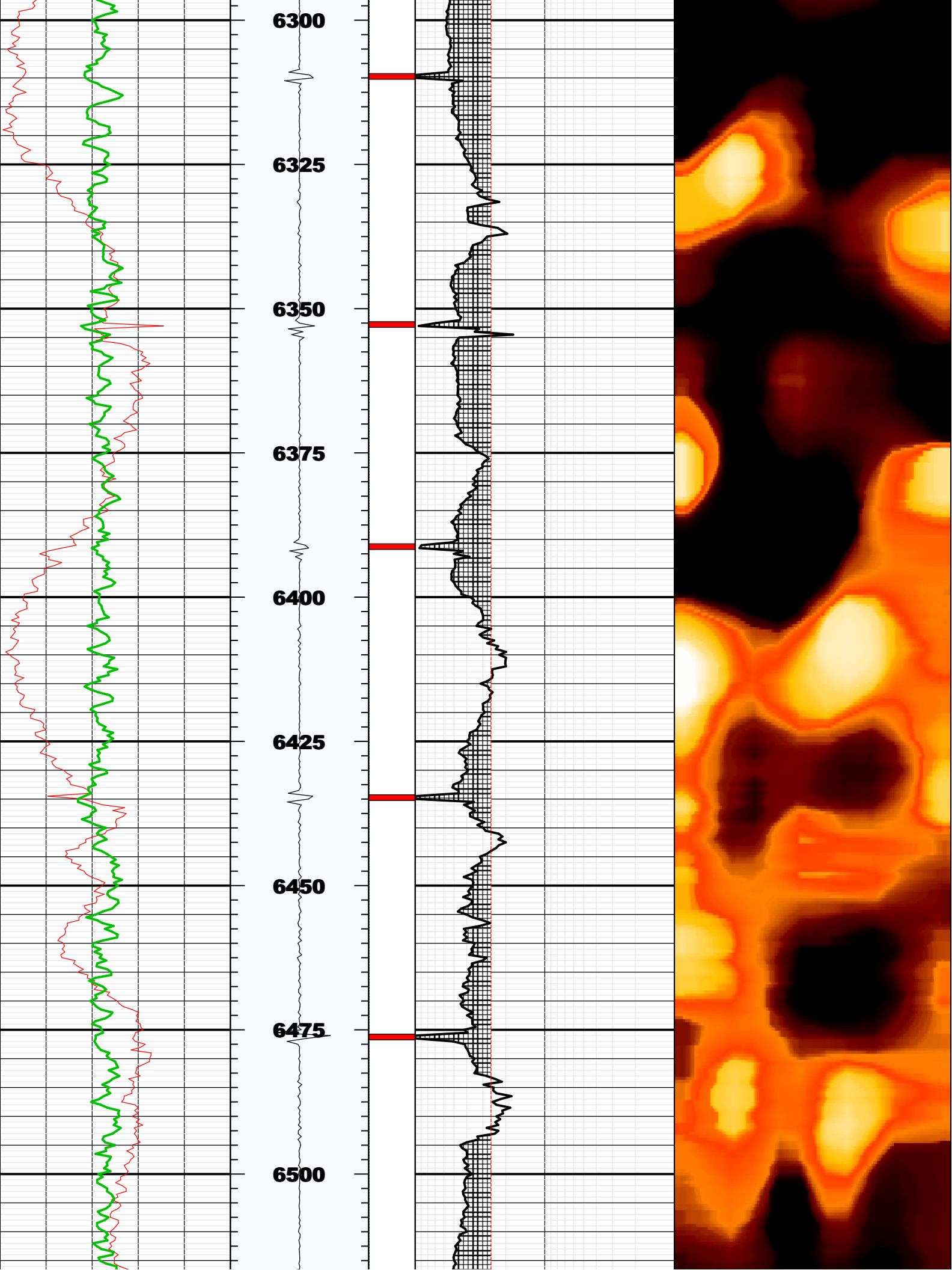




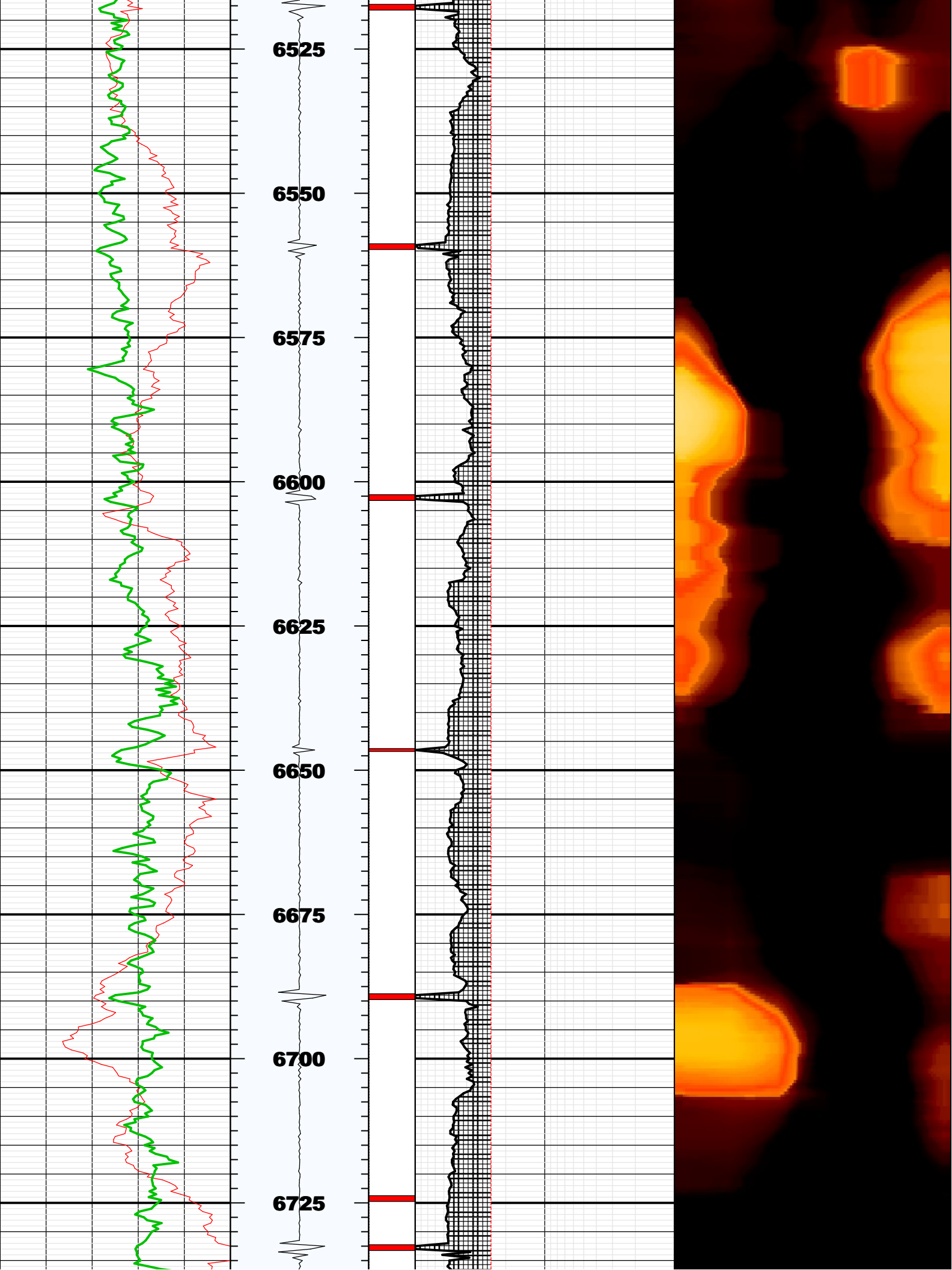


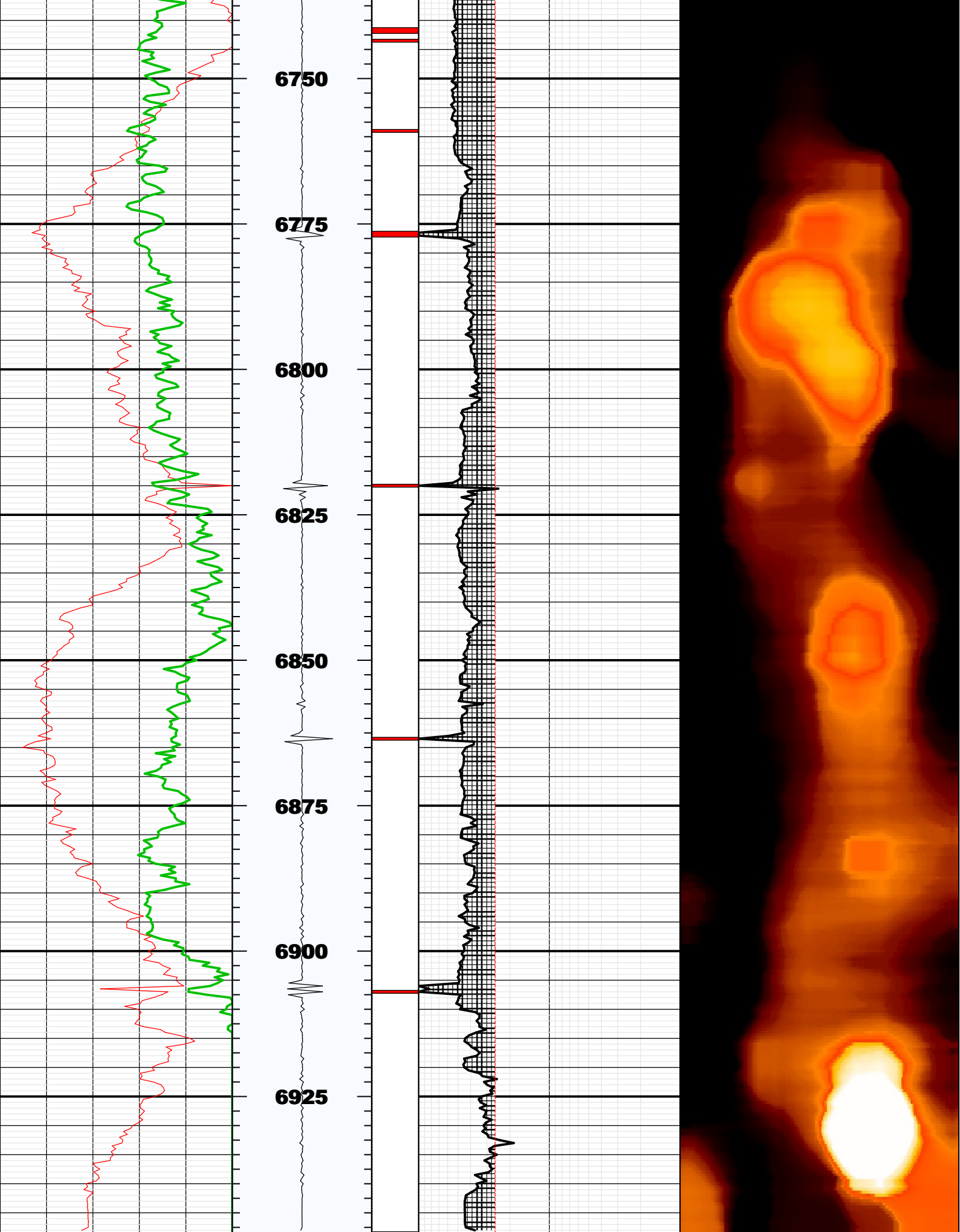








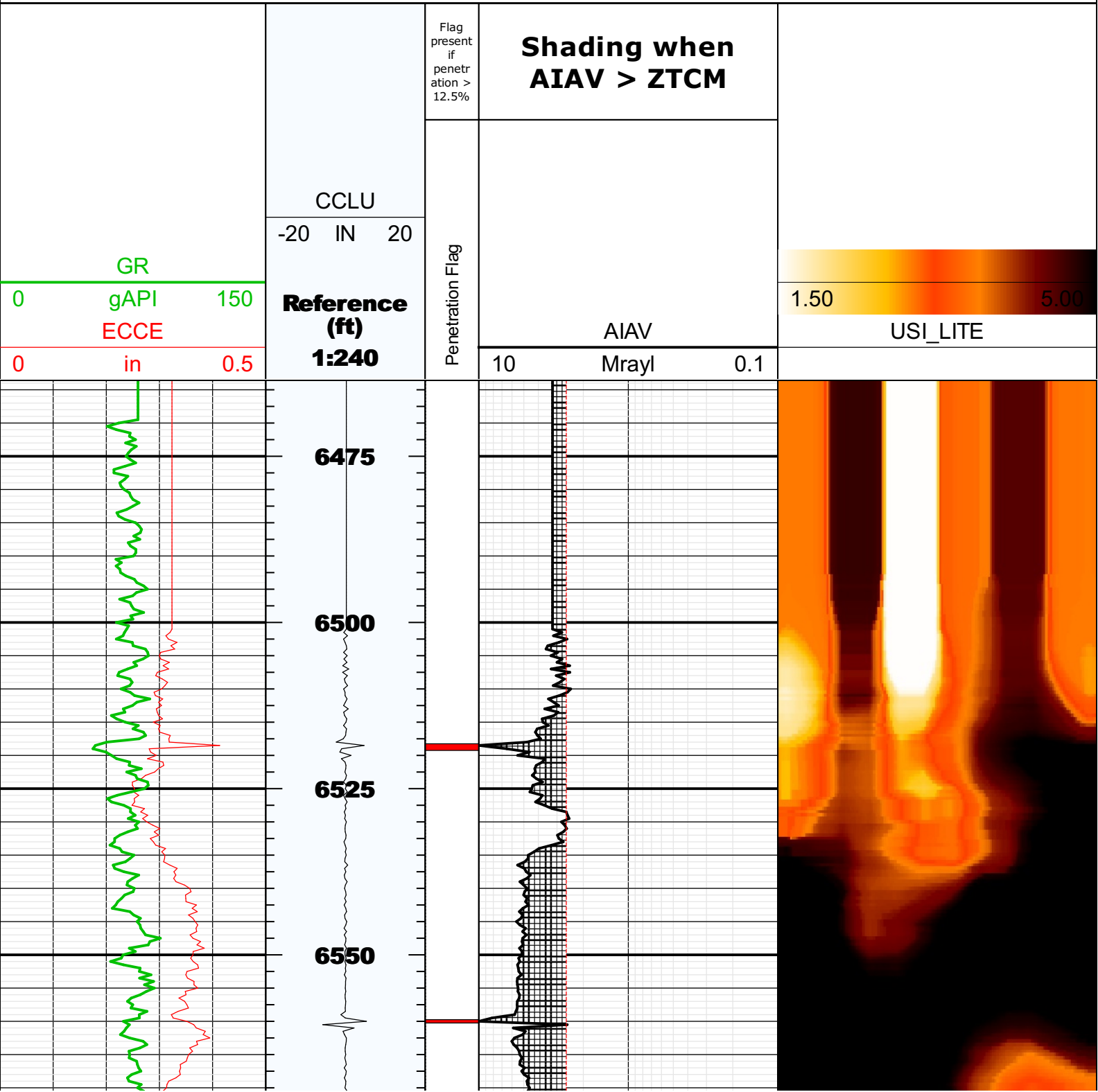


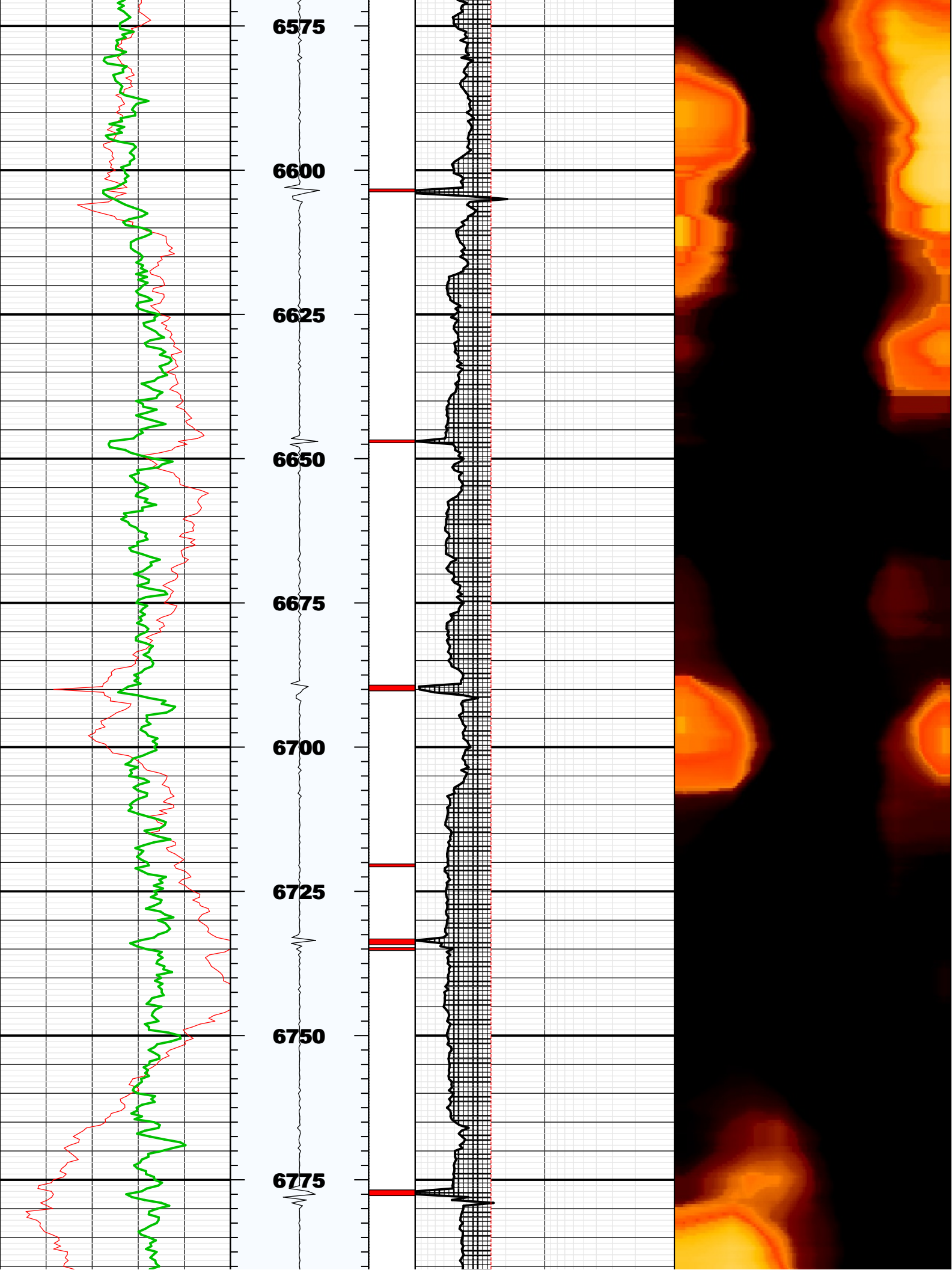


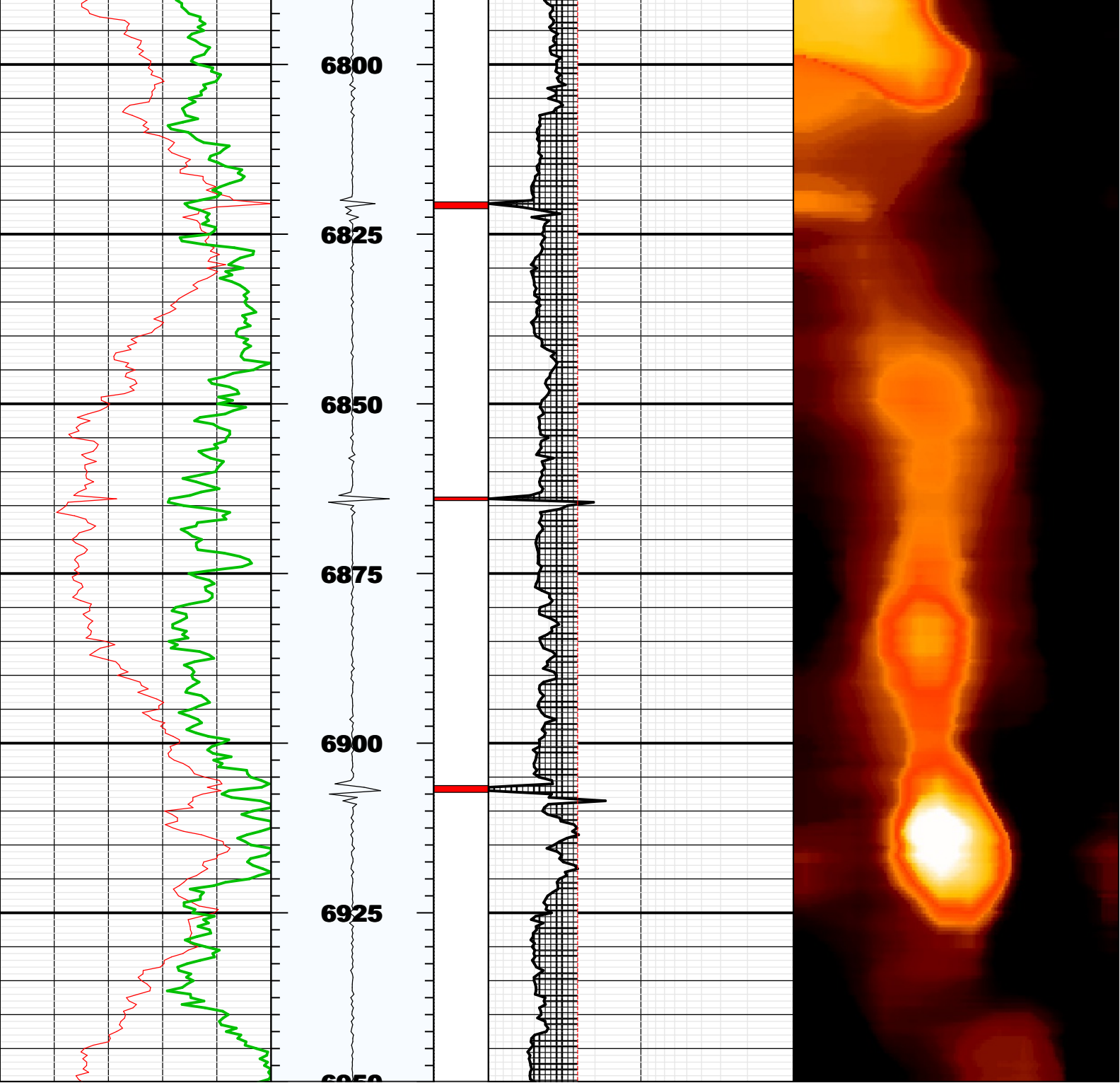
|             |             |      |  |
|-------------|-------------|------|--|
| BS          | 8.75000     | IN   | Bit Size   |
| CASG        | P110        |      | Casing Grade                                     |
| CDIA        | 7.00000     | IN   | Casing Outer Diameter                            |
| CSID        | 6.27600     | IN   | Casing Inner Diameter                            |
| CSIZ        | 7.00000     | IN   | Current Casing Size                              |
| CWEI        | 26.00000    | LB/F | Casing Weight                                    |
| DFD         | 8.70000     | LB/G | Drilling Fluid Density                           |
| DFVL        | 206.00000   | US/F | Default Fluid Velocity                           |
| DO          |             |      |  |
| DOT         | 2.87400     | IN   | Diameter of Transducer Sensor                    |
| EMXV        | 48          | V    | EMEX Voltage                                     |
| FDII        | 0.00000     | F    | FPM Data Interpolation Interval                  |
| FSOD        | 0_OFF       |      | Fluid Slowness Fits Casing Outer Diameter        |
| LOGMODE     |             |      |  |
| PP          |             |      |  |
| STEP        | -0.5        | F    | STEP   |
| THDH        | 130.00000   | %    | Maximum Search Thickness (percentage of nominal) |
| THDL        | 70.00000    | %    | Minimum Search Thickness (percentage of nominal) |
| THDP        | Fundamental |      | Thickness Detection Policy                       |
| THNO        | 0.36200     | IN   | Nominal Thickness of Casing                      |
| TMUC        | WRM         |      | Type of Mud                                      |
| U-USIT_DT3P |             |      |  |
| UPAT        | 375K        |      | Emission Pattern                                 |
| USUB        | 7INC        |      | USIT Sub Identifier                              |
| UWKM        | D603010L    |      | Working Mode                                     |
| VCAS        | 51.40000    | US/F | Ultrasonic Transversal Velocity in Casing        |
| WINB        | 34.59587    | US   | Window Begin Time                                |
| WINE        | 78.40100    | US   | Window End Time                                  |
| ZCAS        | 46.25000    | MRAY | Acoustic Impedance of Casing                     |
| ZINI        | -1.00000    | MRAY | Initial Estimate of Cement Impedance             |
| ZMUD        | 1.48000     | MRAY | Acoustic Impedance of Mud                        |
| ZTCM        | 2.60000     | MRAY | Acoustic Impedance Threshold for Cement          |
| ZTGS        | 0.30000     | MRAY | Acoustic Impedance Threshold for Gas             |
| WLEN        | 22.50350    | US   | T <sup>^</sup> 3 Processing Length               |

Repeat Pass

Company: Noble Energy Inc  
Well: Reliance E23-65-1HN  
Field: Wattenberg









## Fluid Properties Used for Main Pass

